Textile Industries

Formerly "COTTON"

A W. R. C. Smith Publication

FEBRUARY, 1953

Highlights

Modern Production Methods
(A Special Section; starts page 99)

70 Case History Reports from mills, telling how they

Save Labor
Simplify Jobs
Reduce Waste
Improve Quality
Increase Production

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HERE'S WHY—

Saco-Lowell Recommends Reliance Motors for Your New Gwaltney Spinning Frames

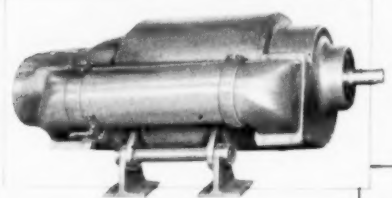
Reliance Spinning-Frame Motor drives the Saco-Lowell Gwaltney Spinning Frame.

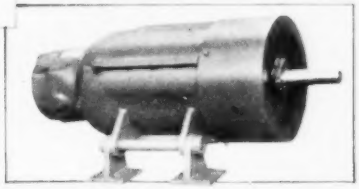
Reliance Totally-Enclosed Dual-Cooled Spinning-Frame Motors offer the advantages of water cooling without the disadvantages of conventional water-cooled motors. Heat is carried out of the room by water, thus reducing the load on the air-conditioning system. The unique Reliance cartridge-type heat exchanger which makes this possible can be removed for inspection or replaced by one man in three minutes without stopping the motor or disturbing its mounting.

These a-c. motors have all features of Reliance PRECISION-BUILT Motors including the matchless Reliance pre-lubricated bearing . . . "You Can't Grease 'em Wrong".

For mills using air-cooled motors, Reliance offers a new totally-enclosed, fan-cooled design.

For more information, call one of the 52 convenient Reliance Sales Offices or write for Bulletins B-2301 and B-2302.





Above: Reliance Totally-Enclosed Dual-Cooled Spinning-Frame Motor. Right: Reliance Totally-Enclosed Fan-Cooled Spinning-Frame Motor. Axial-flow fan blows cooling air over the motor and several yards beyond, eliminating any "hot spots". Smooth contours prevent accumulation of lint on motors.

Sales Representatives in Principal Cities

RELIANCE ELECTRIC AND ENGINEERING CO.

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for many years
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Volume 117 Number 2

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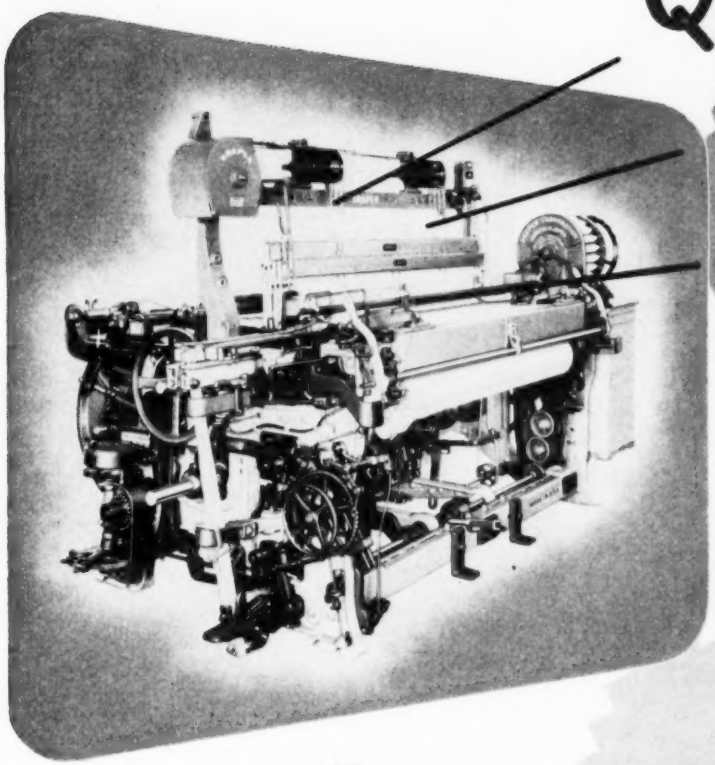

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FOR THE TEXTILE INDUSTRY

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Vol. 117, No. 2

Textile Industries

Formerly "COTTON"

February, 1953

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John C. Fonville, *Editor* John C. Cook, *Bus. Mgr.*

ABC AUDITED NET PAID CIRCULATION

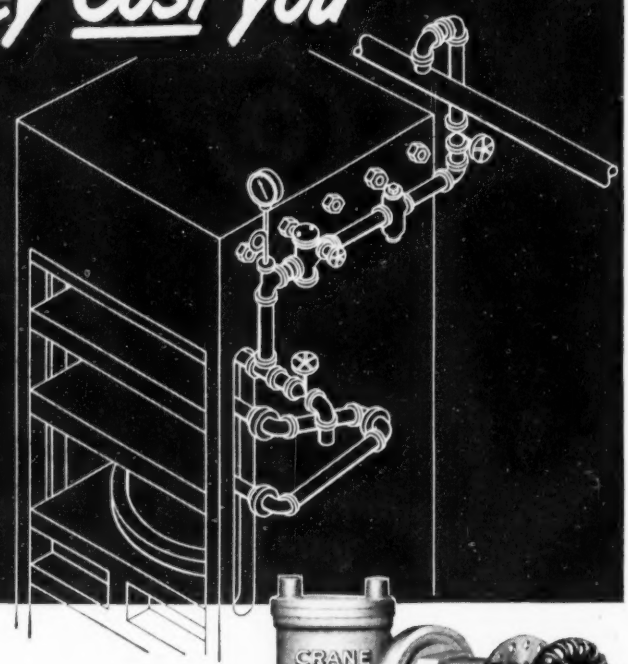
For names and addresses of other editorial and business representatives, see page 210

It's not what you Pay for Valves ...it's what they Cost you

on Steam Heated Machinery

for example

(A Case History)



Crane No. 960 Brass Pressure Regulator, for steam or air, up to 250 psi. See your Crane Catalog.

What you pay for valves is not the final criterion of value. Not when maintenance can quickly equal or exceed purchase price. A thrifty buyer knows his maintenance; knows also there's bigger value in better quality.

Take the case at Dryden Rubber Division of Sheller Mfg. Corp., Chicago. More than 25 years ago, this plant started using Crane Pressure Regulators on steam lines to molding presses. 225 are in service today; many still are the original installations, still working faithfully. The records for all Crane regulators, regardless of age, show no maintenance cost other than prescribed periodic routine servicing.

Today, more than ever, you need greater assurance of quality in piping materials. You get it in Crane Valves—the recognized standard of quality with thrifty buyers everywhere. Your big Crane Catalog offers complete selections for all needs. Your Crane Representative is always ready to serve you.

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SALES ENGINEERS: NORTHERN AND EASTERN: Jay S. Gosnell, American Lava Corporation, 671 Broad St., Newark, N. J., Mitchell 2-8159. SOUTHEASTERN: Joe E. Spearman, American Lava Corporation, 401 Belton St., Charlotte, N. C., 4-1525. ALL OTHER AREAS: J. B. Shacklett, American Lava Corporation, Chattanooga 5, Tenn., 5-3411.

"CONVERSATIONS LIKE THIS ARE COMMONPLACE TODAY!"

10/1	20% Nubs 80% 3 Denier Bright Viscose	26/1	20% Dynel 3 Denier-3" 20% Viscose 3 Denier-3" 60% 64's Australian Top-3"
16/1	12% 3 Denier Nylon-2½" 38% 3 Denier Acetate-2½" 50% 3 Denier Dull Viscose-2½"	28/1	20% Australian Top-64's 80% Acrilan 3 Denier-3"
14/1	60% 64's Australian Top 4% Orlon-3 denier-3"	28/1	100% Orlon 3 Denier-2½"
16/1	7% 3 Denier 3" Nylon-2½" 43% 3 Denier Acetate-2½" 50% 3 Denier Dull Viscose-2½"	30/1	100% Nylon 3 Denier-3" 12½% 64's Australian Top
26/1	80% 3 Denier Dacron-3" 20% Australian Top-64's	32/1	80% Nylon 3 Denier-3" 7½% Dull Viscose 3 Denier-3"

We Mill Managers must recognize that these are the facts we must face — in 1953 over 687 million pounds of synthetic staples will be manufactured and spun. Our own Sales and Designing Department have given us these 10 blends to spin and weave. Tell me, can Saco-Lowell help us to meet this complex demand?

Why yes, Mr. Treasurer, we can. Saco-Lowell Shops anticipated this demand and now have ready for installation mill tested units designed and engineered for the very job. Our 3 Over 4 Drawing, F-5 Roving Frame and Z-5 Spinning will handle all of your blends efficiently. Under proper conditions you will have no trouble making quality yarns and fabrics with this equipment.

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.

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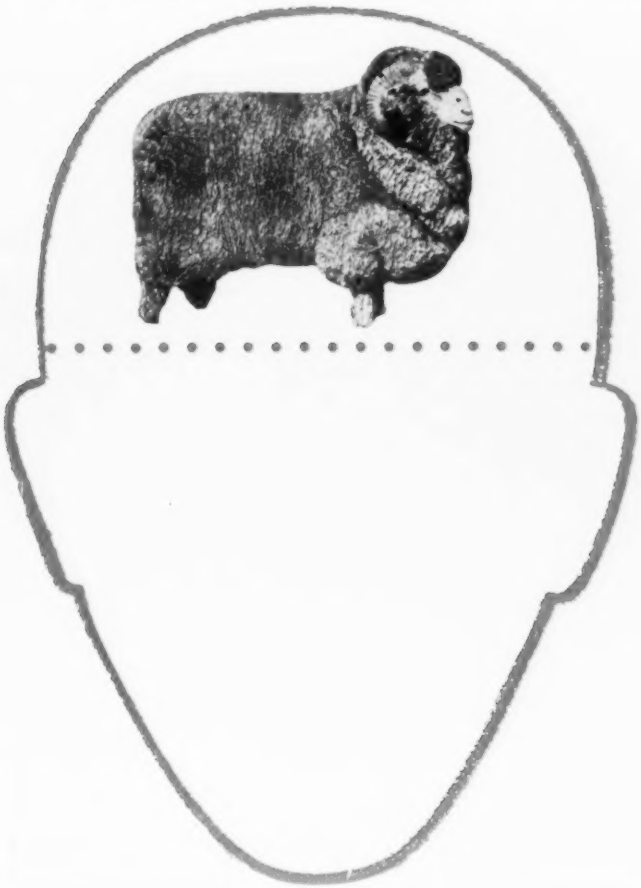
when you think of wool...

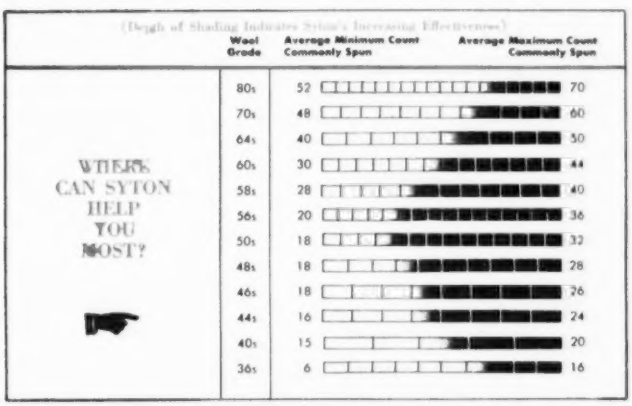


think of

SYTON

Woolen and worsted processing for civilian consumption is again at a high level. Competition is heavy . . . good reason why you should give some extra thought to Syton, Monsanto's silica sol for more efficient and profitable spinning.

Syton boosts the yarn strength of woolens and worsteds from 10 to 30%, depending upon the particular construction. Spinnability is further improved since, with Syton, you get fewer ends down . . . rounder woolen ropings with less apron pressure . . . finer counts from equal stocks . . . equal yarn strength with less twist.



JUST AS EFFECTIVE ON BLENDS—

Syton yields similar processing advantages when used in synthetic-wool blends. In addition, it helps control inter-fiber slippage by causing the smooth synthetic staple to behave more like a serrated wool fiber.

Syton: Reg. U. S. Pat. Off.

ASK FOR NEW SYTON BOOKLET, JUST PUBLISHED

MONSANTO CHEMICAL COMPANY,
Textile Chemicals Dept., Desk TIT-43
Everett Station, Boston 49, Mass.

Please send me new Syton booklet.

Name & Title _____

Company _____

Address _____

City, Zone, State _____

SERVING INDUSTRY . . . WHICH SERVES MANKIND

MONSANTO
CHEMICALS — PLASTICS

Cut Your V-Belt Costs Right Now!

—this test tells how!

If you want longer V-Belt wear and lower V-Belt costs just make this simple test. Bend any V-Belt that has *straight sides* and—as it bends—*feel* the sides bulge out! (See Fig. 1-A, below)

This out-bulge forces the belt to press unevenly against the V-pulley and of course wear on the belt is concentrated where it bulges most. Naturally this shortens the life of a *straight-sided* V-Belt.

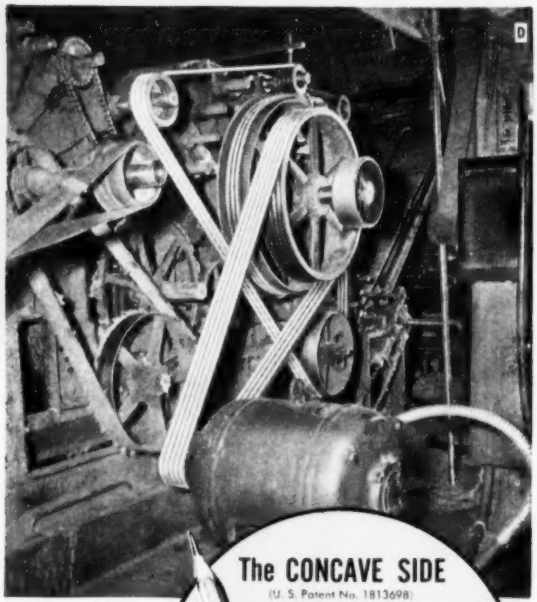
Now, make this same test with the belt that is built with *concave sides*—the Gates Vulco Rope!

See the difference? There is no *out-bulge!* The precisely engineered concave sides *fill out* and become *perfectly straight.* They now *exactly fit* the sheave groove and therefore *press evenly* against the V-pulley. This distributes all wear *uniformly* across the *full width* of the Gates Vulco Rope. And this means longer belt life and *lower belt costs* for you.

Only V-Belts made by Gates are built with concave sides. Whenever you buy V-Belts, be sure that you get the V-Belt with Concave Sides—the Gates Vulco Rope!

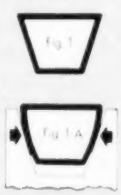
Gates Engineering Offices and Jobber Stocks are located in all industrial centers of the United States and in 71 foreign countries.

Bender Bros., Inc., Camden, New Jersey, replaced flat belts on this Garnett machine with Gates Vulco Ropes, as shown. The replacement has saved Bender Bros. more than $1000 in yearly maintenance expense.



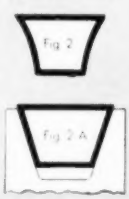
What Happens When a V-Belt Bends

Straight-Sided V-Belt



How a Straight-Sided V-Belt Bulges in the Sheave-Groove. Sides Press Unevenly Against the V-Pulley, Causing Extra Wear at Point Shown by the Arrows.

Gates Vulco Rope With Concave Sides



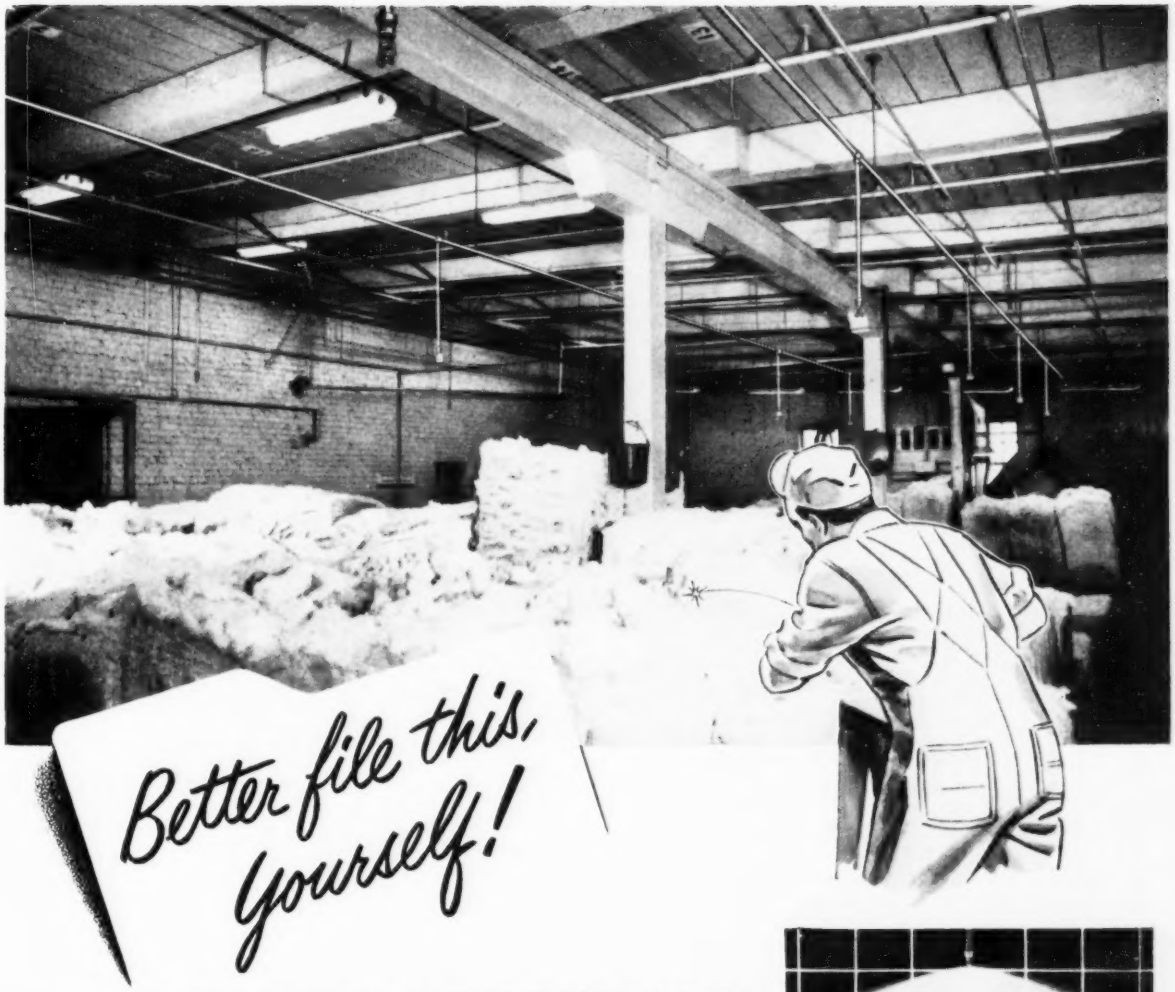
The Concave Sides Fill Out to Precise Fit in Sheave-Groove. No Side-bulge! Sides Press Evenly Against the V-Pulley —Uniform Wear and Longer Life!

CS-531

Gates® VULCO ROPE DRIVES

THE GATES RUBBER COMPANY • DENVER, U.S.A.

V-Belts — Hose
Molded Rubber Goods for industry
World's Largest Maker of V-Belts



Better file this, yourself!

Clear proof that GRINNELL OPENER ROOM SYSTEMS give maximum flash fire protection using minimum water

While ~~firing~~ a bearing in a room with more than 60 open cotton bales, a workman caused a spark to fall into one of the bales, igniting it. Another workman moved over to the nearest control station, pressed the valve lever of the Grinnell Opener Room System for a few seconds, and put the fire out.

Water damage slight . . .

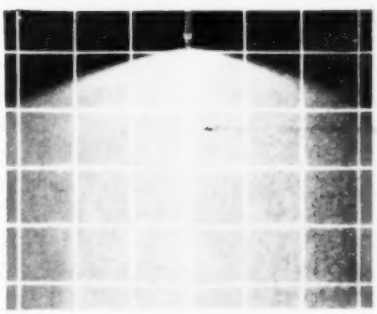
Only 3 of the bales were damaged by the fire — a $300 to $400 loss. Wetting of the remaining bales was so slight that the cotton was ready for the opener machines next morning. Plant operation was uninterrupted.

Safeguards a wide area . . .

Why not satisfy yourself about the many features Grinnell Opener Room Systems provide? Learn how surface fibres *within a wide area* are dampened by a misty spray, preventing the spread of fire. Discover how the self-closing valve prevents excessive water damage by shutting off the water flow. Where time does not permit normal evaporation, no more than a thin top layer of cotton ever need be stripped off the bales for drying.

Special and supplementary protection . . .

A Grinnell Opener Room Fire Protection system is not intended to take the place of regular Grinnell Automatic Sprinkler Protection, but is supplementary to it. The former takes care of "flash" fires; the latter, of deep seated fires far enough advanced to operate a sprinkler system.



Spray from a Grinnell ProtectoSpray nozzle used in Opener Room Systems.

Call for the facts . . .

Before fire strikes your opener room, call your nearby Grinnell Fire Protection Office for complete facts. Grinnell Company, Inc., Providence, R. I. Branches in principal cities.

GRINNELL

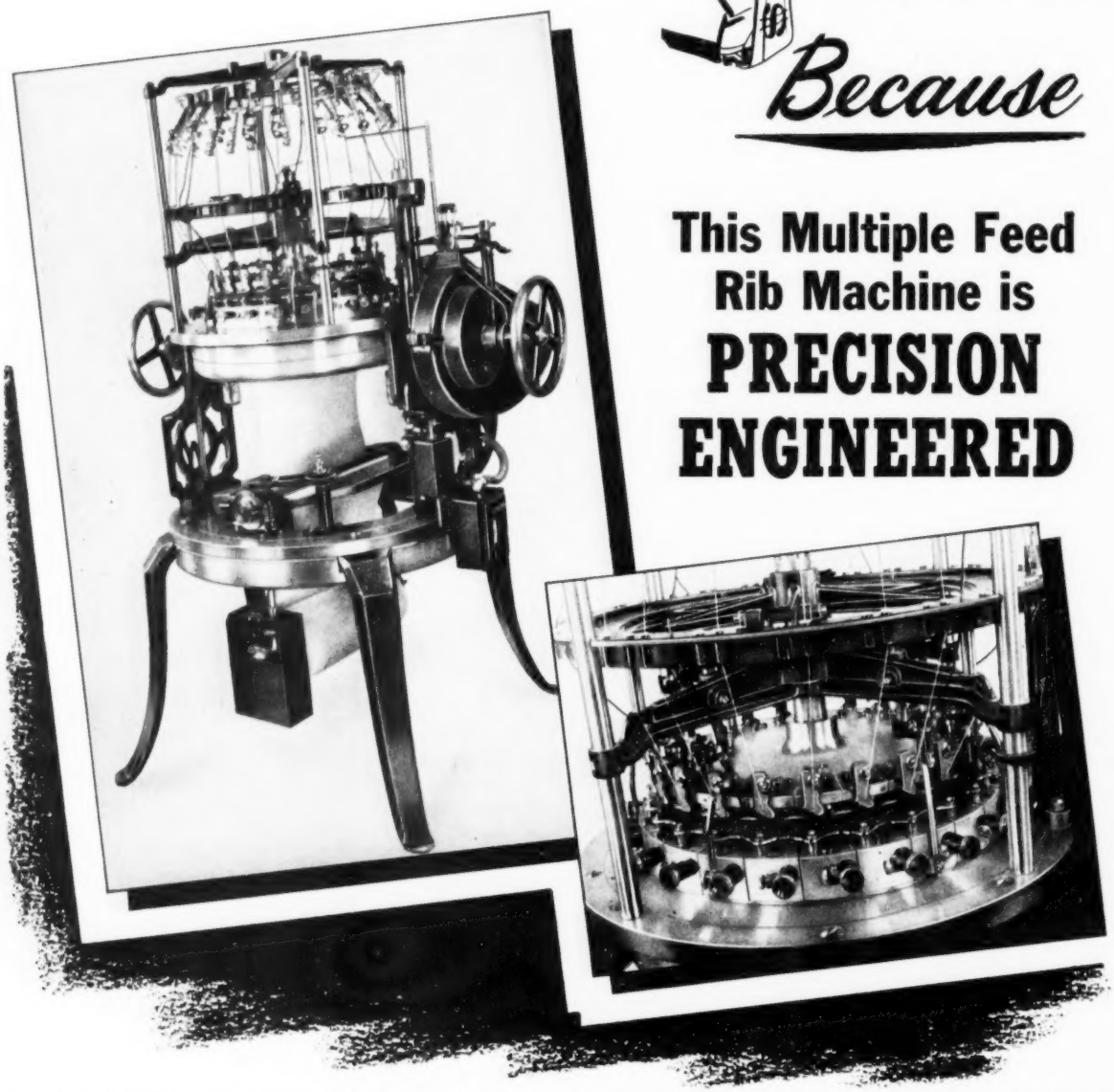
FIRE PROTECTION SYSTEMS

Manufacturing, Engineering and Installation of Automatic Sprinklers Since 1878

You Can S-T-R-E-T-C-H Your Dollars Invested Here

Because

This Multiple Feed Rib Machine is PRECISION ENGINEERED



Need adaptable equipment for knitted garments of all types? . . . Then here is your opportunity to maintain diversified pattern designs, better styling, uniform sizes.

In addition, you get double production for unit floor space with a power increase of only about one-third. And, depth of pattern is greater where a different colored or type of yarn is used in relation to other yarns.

Economical, efficient, versatile — the WILDMAN Multiple Feed Rib Machine.

WILDMAN MANUFACTURING COMPANY

Norristown, Pennsylvania

"BOSS, THERE'S A GENTLEMAN HERE TO SPEAK TO YOU ABOUT A REVOLUTIONARY INVENTION!"

SEYCO
Products

WARP SIZING
- Softeners
- Binders
- Penetrants
- Ty-In Penetrants
- Shuttle Dressing

WET PROCESSING CHEMICALS AND AUXILIARIES
- Dye Assistants
- Pentrants
- Rewetting Agents
- Sanforized Fabric Oils
- Detergents
- Scouring Agents
- Softeners

NIAGARA TWIST-SETTER
- Yarn Conditioning Penetrants

Be careful of "Bright Ideas" from inexperienced sources.

You can be sure of SEYCO Products. Years of background experience plus careful testing precede any public offering.

SEYCO Textile Chemicals will do what you want done.

Ask us.

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SEYDEL-WOOLLEY & CO.

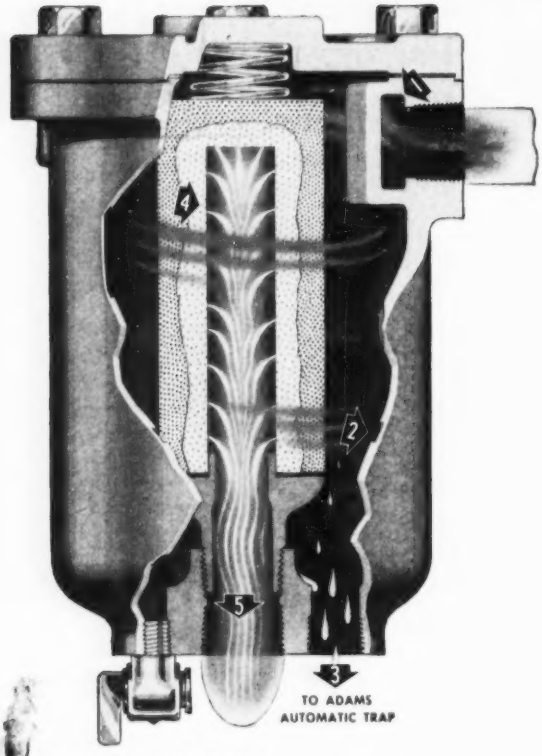
TEXTILE CHEMICALS

748 RICE STREET • ATLANTA, GA.

SEYCO

PENETRANTS • SIZING • SHUTTLE DRESSING • SOFTENERS • ALKALIS
• TWIST SETTER MACHINES •

ADAMS *has both* *



—— BOTH ANSWERS TO THE PROBLEM OF KEEPING WATER, WATER VAPOR, OIL AND DIRT OUT OF COMPRESSED AIR LINES

There's no *one* answer to this problem! The most expensive aftercooler you can buy will not remove scale that is picked up in the distribution lines. The most expensive air filter you can buy cannot guarantee removal of water vapor until it has been condensed by cooling. That's why Adams makes both.

* PORO-STONE *AIR FILTER*

1. Centrifugal separation of dirt and liquids.
2. Drainage to trap directed by vertical cast-in slots.
3. Continuous, fully automatic trap action.
4. Rapid diffusion and filtration through permanent, cleanable Poro-Stone.
5. Clean, dry air at practically unchanged pressure. Standard, stocked sizes handle from 10 to 700 cfm.

Easily installed in either vertical or horizontal pipe line.

* AFTERCOOLER AND CYCLONE SEPARATOR

Cools air to within a few degrees of cooling water, making certain that compressed air is colder than surrounding atmosphere, so that no further condensation can take place.

Counter flow, air-through-tube design assures continuously high heat transfer rate.

Double cyclonic action deposits all water and entrained oil in moisture chamber.

R. P. ADAMS CO., INC.
216 E. Park Drive, Buffalo 17, New York

Please send me your latest literature, Bulletin No. 176 on BOTH the Poro-Stone air filter and the Adams Aftercooler — Cyclone Separator.

Name .....

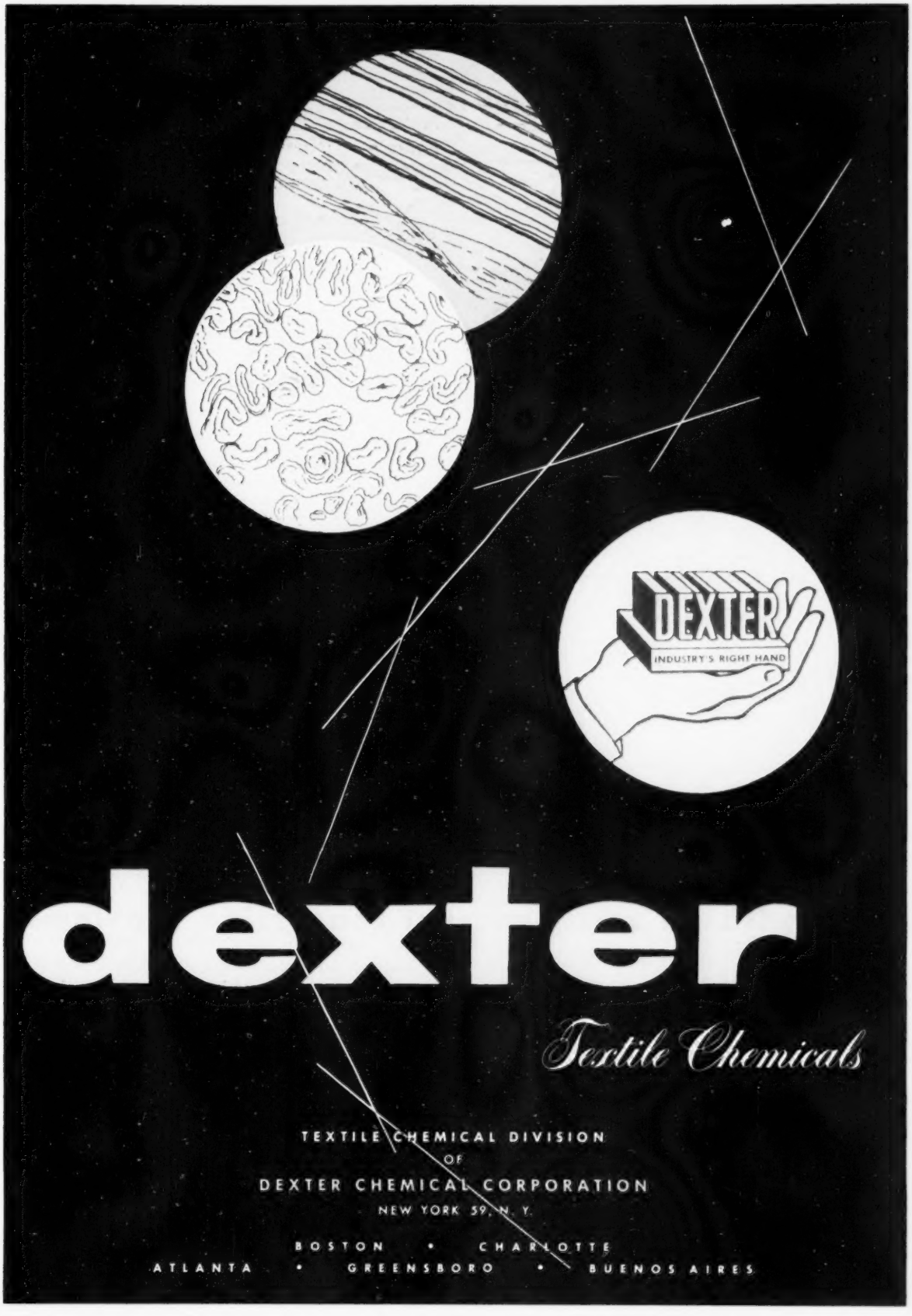
Company ..... *Title* .....

Address .....

City ..... *State* .....

FOR YOUR PROFIT'S SAKE —FIND OUT ABOUT BOTH

R. P. ADAMS CO., INC., BUFFALO 17, N. Y.

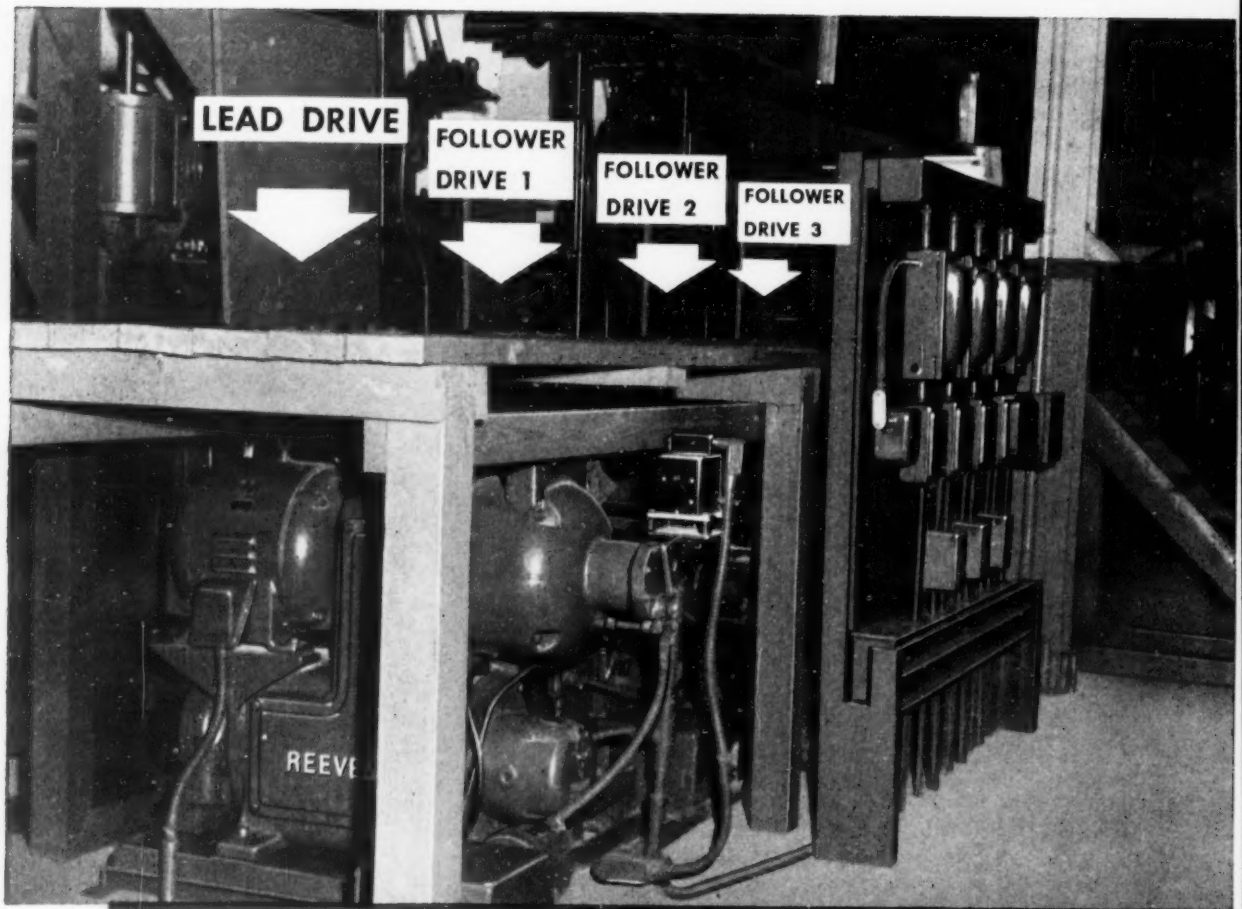


dexter

Textile Chemicals

TEXTILE CHEMICAL DIVISION
OF
DEXTER CHEMICAL CORPORATION
NEW YORK 59, N. Y.

BOSTON • CHARLOTTE
ATLANTA • GREENSBORO • BUENOS AIRES



REEVES —

—with no costly current conversion problems!

REEVES A-C Range Drives give you accurate, immediate, infinitely variable speed control, plus automatic inter-drive synchronization for your range . . . *without* costly current conversion units. *No generators are needed with Reeves A-C Range Drives!* Moreover, REEVES A-C Drives are constant-torque drives. They do not need oversize capacity for reduced speeds. And that means lower operating expense for you.

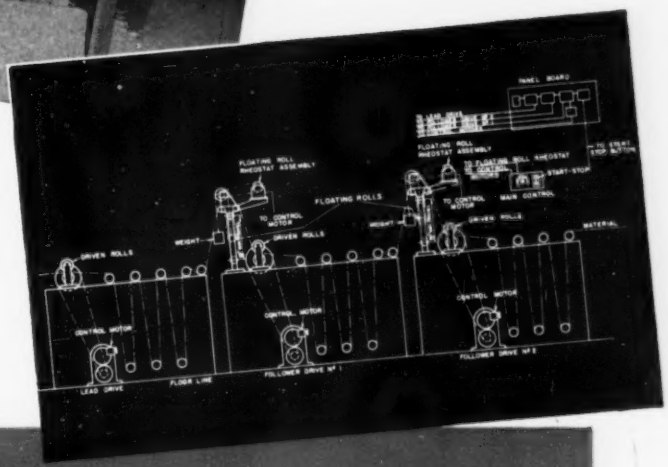
Additional Units May Be Added To Reeves *Mechanical* Drive

Since the REEVES Range Drive is a *mechanical* drive, you gain two important advantages: Any number of follower drive units may be added to the original REEVES installation *without* adding generators or conversion equipment. Repairs and maintenance are easier, too. Less complicated for plant mechanics . . . less costly for you.

Operating Speed is Controlled Automatically

In all REEVES Range Drives, the operating or material speed is set through the lead drive—with the whole system controlled from one control panel. Each follower drive may be adjusted at any time by its own individual manual controls. Once the range is operating, automatic controls "take over." As speed variations occur because of stretch, shrink or load changes between units, REEVES automatically compensates for the changes and brings all units back into synchronization.

Shown here are two views of the **REEVES RANGE DRIVE** installation on a washing range at the Bishopville Finishing Company, Bishopville, South Carolina.



TYPICAL REEVES RANGE DRIVE—Floating rolls operate automatically to compensate for speed variations — actuated by the tendency for increase or decrease in tension of the material. This keeps all units in perfect synchronization.

—the only A-C RANGE DRIVE

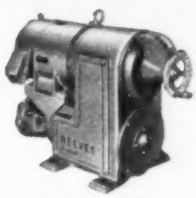
Reeves Engineers Can Help You

REEVES' staff of application engineers is available at all times to help you solve your variable speed control problems. For more complete information regarding the REEVES A-C Range Drive and the REEVES Consulting Service, write to Department T 88-R.

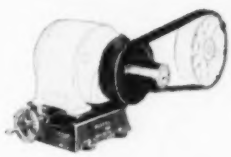
REEVES PULLEY COMPANY • COLUMBUS, INDIANA

Recognized Leader in the Specialized Field of Variable Speed Control

accurate · variable **REEVES** *Speed Control*

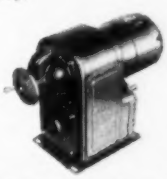


VARI-SPEED MOTODRIVE combines motor, speed changing mechanism and gear reducer in one unit. Speed variations as great as 10 to 1. Sizes to 25 hp.

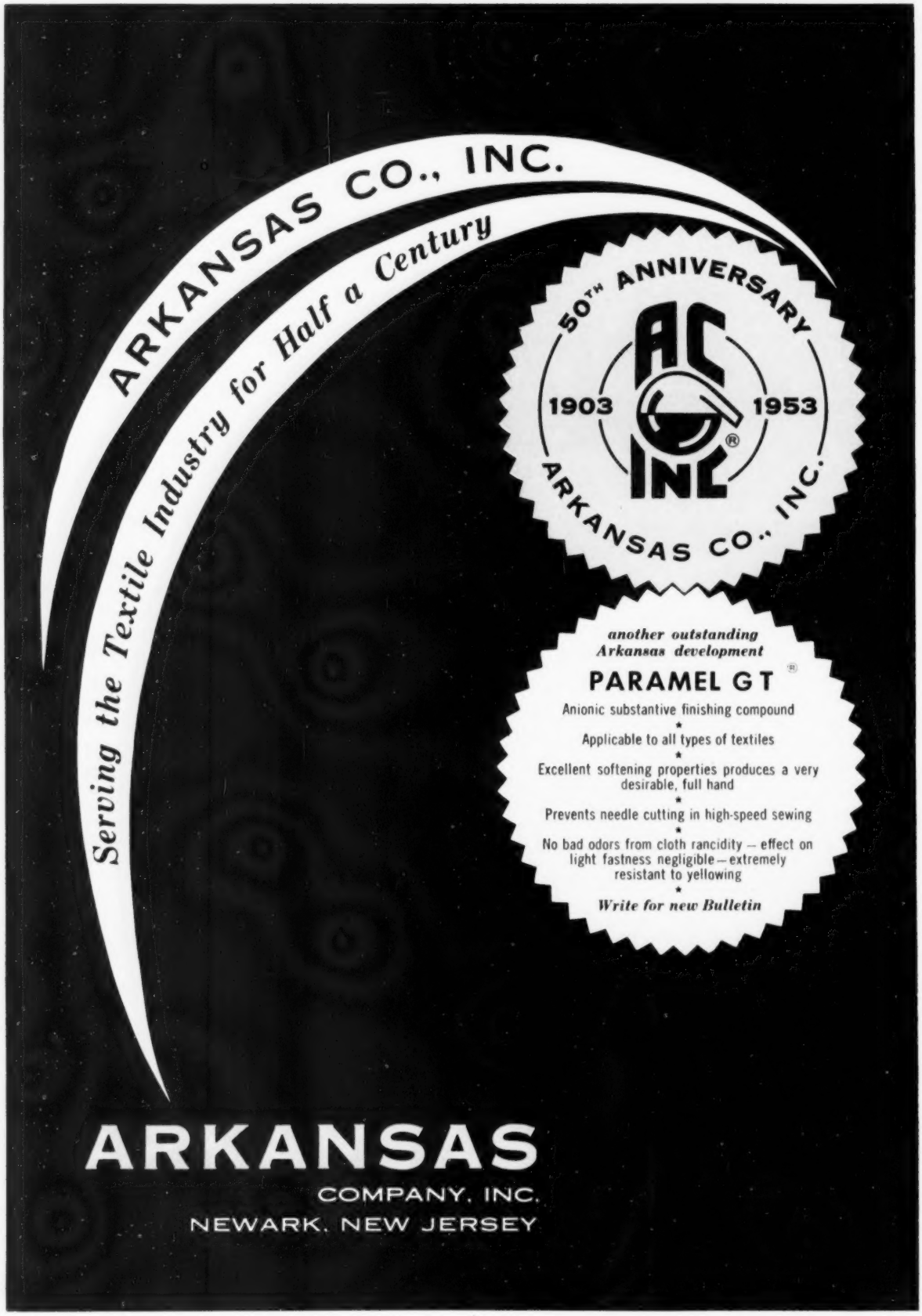


VARI-SPEED MOTOR PULLEY converts any standard, constant speed motor to a variable speed drive. Speed variations up to 4 to 1. Sizes to 10 hp.

VARIABLE SPEED TRANSMISSION provides infinite, accurate, stepless speed adjustability over a wide range—as high as 16 to 1. Sizes to 87 hp.



FRACTIONAL MOTODRIVE provides a smaller variable speed motodrive unit for light horsepower applications. Available in ¼, ½, ½ and ¾ hp units.


ARKANSAS CO., INC.
Serving the Textile Industry for Half a Century
50TH ANNIVERSARY
1903
1953
AC INC.
ARKANSAS CO., INC.
another outstanding Arkansas development
PARAMEL GT
Anionic substantive finishing compound
Applicable to all types of textiles
Excellent softening properties produces a very desirable, full hand
Prevents needle cutting in high-speed sewing
No bad odors from cloth rancidity – effect on light fastness negligible – extremely resistant to yellowing
Write for new Bulletin
ARKANSAS
COMPANY, INC.
NEWARK, NEW JERSEY

12th Century Islamic Egyptian Fabric.
Museum of Art, R. I. School of Design.

. . . then as now

YARN DYED FABRICS were Supreme

About the time Saladin fought Richard Lion Heart's crusaders outside Jerusalem, this yarn dyed fabric was woven in Moslem Egypt. With its conventionalized Arabic lettering still vivid, it may be seen in the museum of Rhode Island School of Design.

Color was used to enhance the appeal of fabrics, before history began. And highest favor was accorded fabrics whose patterns were created from colored yarns.

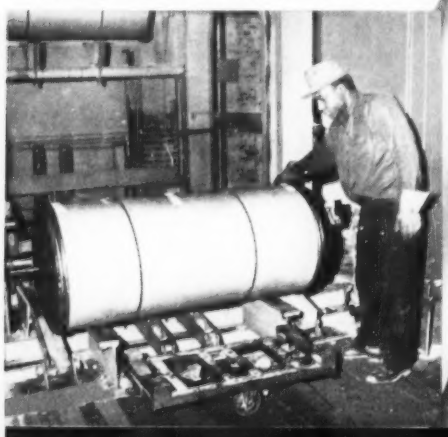
Now, as always, the best fabrics are yarn dyed. For exceptional quality in your colored yarns, and for expert advice in their use, rely on Franklin Process — yarn merchants and the largest package yarn dyers in the world.

YARN MERCHANTS AND LARGEST PACKAGE DYERS IN THE WORLD

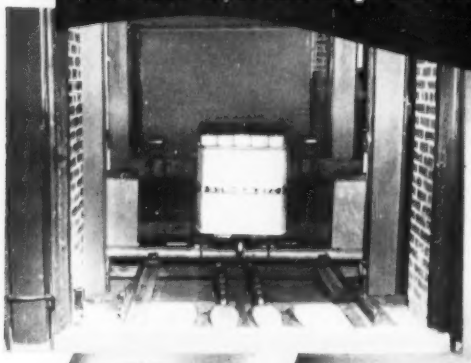
Franklin Process

New York Representative — 40 Worth Street
Providence
Philadelphia
Greenville
Chattanooga

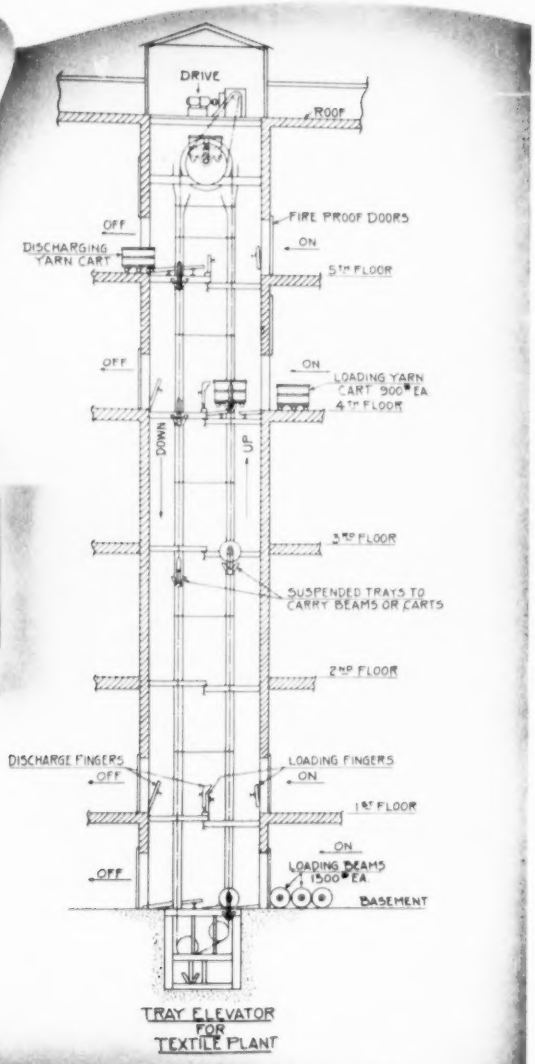
Beam being discharged at predetermined floor



Only through Engineering...
...can efficiency be achieved



Loaded box truck on way to desired floor



TRAY ELEVATOR FOR TEXTILE PLANT

Firestone saves $25,000 a year with this G-W "Ferris Wheel"

Moving 1300-lb. beams of rayon and 900-lb. box trucks in and out of freight elevators is a back-breaking job. Yet approximately 230 of these bulky loads must be lifted (and empties returned) every day at the Firestone Textiles Division of the Firestone Tire and Rubber Co., Gastonia, N. C.

This Gifford-Wood "Ferris Wheel"—a 6-story roundabout tray elevator—has assumed most of the work load. Beams and trucks are automatically picked up on the loading side of a shaftway by trays suspended between two endless chains, carried to the top, eased over the drive sprockets, lowered to the desired floor, and automatically discharged.

The $25,000 annual saving is basically one of reduced labor requirements and improved handling efficiency, and the limited manual work remaining is much less strenuous than formerly.

This is just one of many conveyors born of G-W ingenuity and experience—a product of efficiency through engineering. Call on G-W Materials-Handling Engineers to survey your present methods; you are under no obligation. It might well prove to be a step toward higher profits through lower operating and maintenance costs.

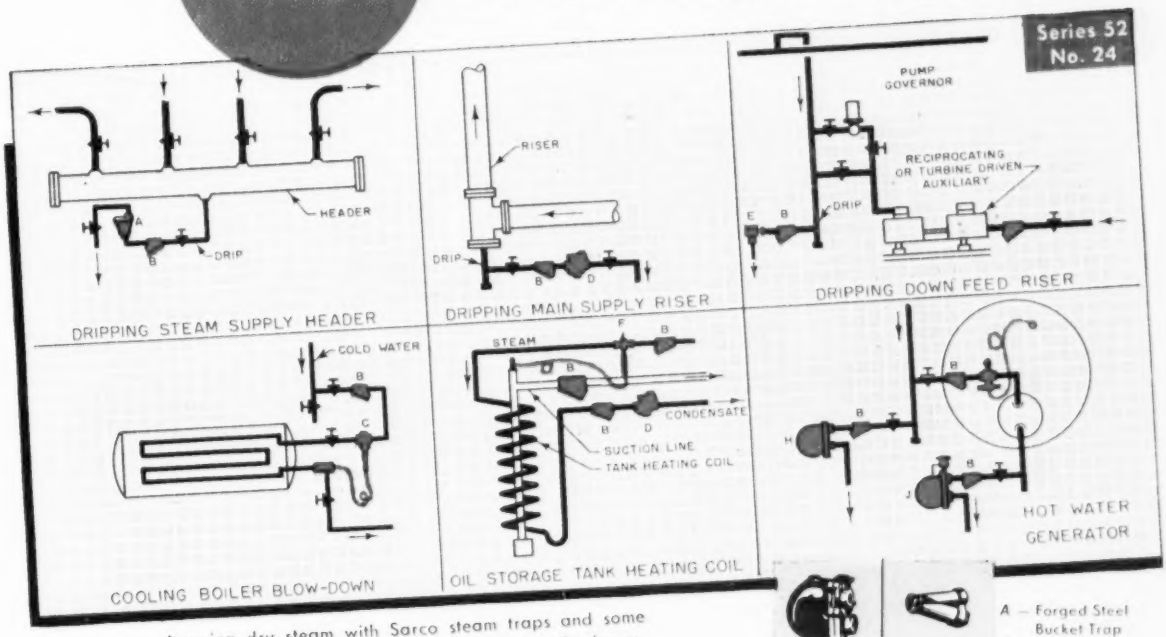
When You Think of Materials Handling—Think of **GIFFORD-WOOD CO.**

Since 1814 • Hudson, New York

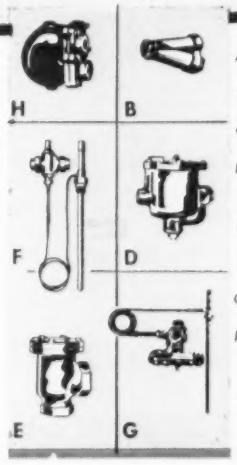
NEW YORK 17, N. Y. 420 LEXINGTON AVE. | ST. LOUIS 1, MO. RAILWAY EXCHANGE BLDG. | CHICAGO 6, ILL. 565 W. WASHINGTON ST.

® 8405

SARCO in the boiler house...



Assuring dry steam with Sarco steam traps and some Sarco temperature control hook-ups in the boiler house.



A — Forged Steel Bucket Trap
B — Pipe Line Strainer
C — Temperature Regulator, TR-19
D — Inverted Bucket Steam Trap
E — Thermostatic Steam Trap
F — Temperature Regulator TR-21
G — Temperature Regulator 24-30
H — Float-Thermostatic Trap, type FTS
J — Float-Thermostatic Trap, type FTD-M

● STEAM TRAPPING AND TEMPERATURE CONTROL problems begin right where steam is generated. The modern boiler plant with its maze of piping and auxiliary equipment offers striking evidence of the advantages of a complete line from one source of supply.

No one type of steam trap or temperature regulator provides the correct solution to all the varied problems presented.

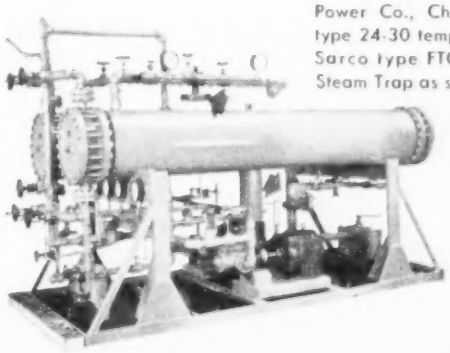
Sarco makes four distinct types of steam traps and can give you unbiased advice on the best type for any job, based on 30 years experience and thousands of installations. ***Write for trap selector chart 145-4.***

The Sarco line of simple temperature control for heating or cooling is complete. ***Full information in Catalog 600-16.***

It pays to standardize on Sarco—exactly the right type of trap or regulator, but all of one make—no divided responsibility!

Sarco Company, Inc.
Empire State Bldg., New York 1, N. Y.
Branches in principal cities.
Sarco Canada Ltd., Toronto 8, Ont.

SARCO saves steam
improves product quality and output



Enterprise dual pump set to preheat 3,200 gph of Bunker C fuel oil to 225°F. Supplied by Enterprise Heat & Power Co., Chicago, Ill. with Sarco type 24-30 temperature regulator and Sarco type FTQ Float-Thermostatic Steam Trap as standard equipment.

423

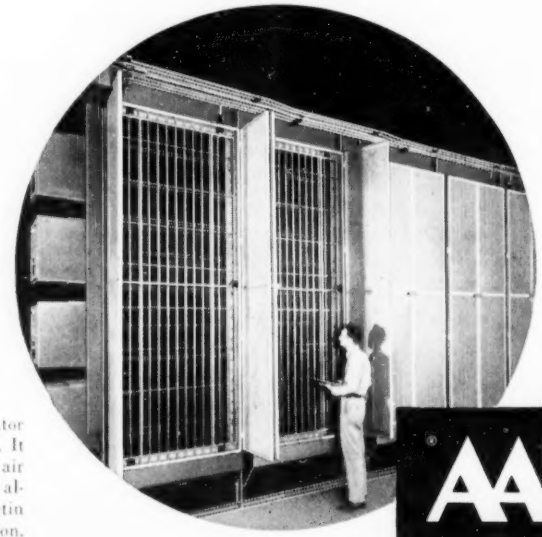
Clean Air **MAKES THESE MORE BEAUTIFUL**

The country's largest hosiery manufacturers use AAF ELECTRO-MATIC precipitators to positively eliminate airborne dust and smoke in the precision manufacture of full-fashion hosiery.

The finished products are more perfect. The number of rejects is cut to a minimum. And the delicate automatic knitting machinery is protected against costly breakdown and unnecessary wear.

American Air Filter
COMPANY, INC.

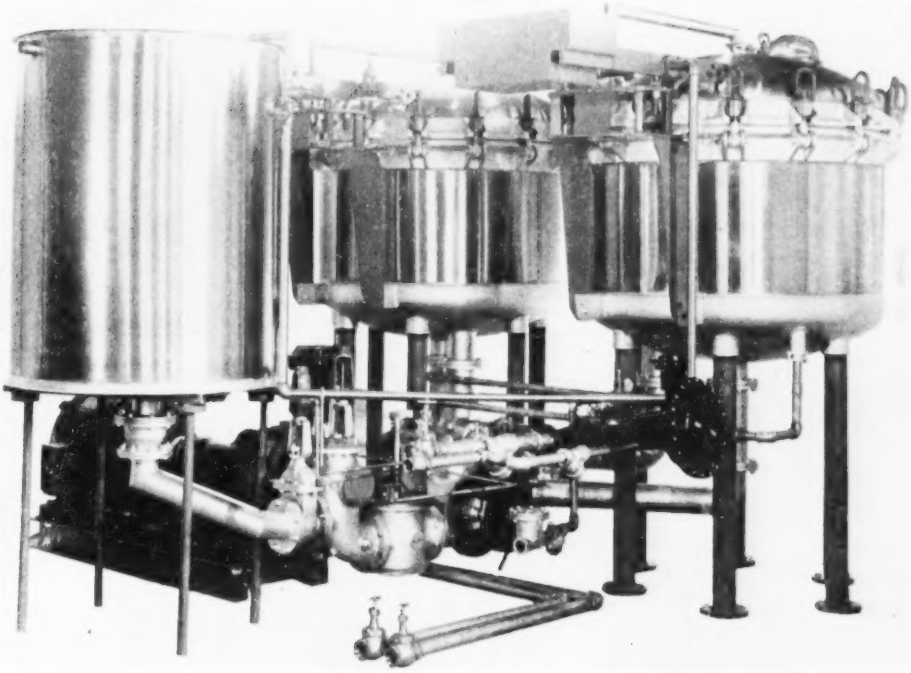
275 Central Avenue, Louisville 8, Kentucky
American Air Filter of Canada, Ltd., Montreal, P. Q.



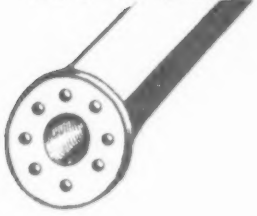
The ELECTRO-MATIC precipitator even removes smoke from the air. It assures a positive, constant clean air volume and cuts maintenance to almost zero. Please write for Bulletin No. 250 for additional information.

AAF

Gaston County's **rugged construction**



...*Assures* Safe Working Pressure of 75 PSI



. . . With a safety factor of 5!

Gaston County's rugged construction is of prime importance in the high-pressure, high-temperature dyeing of synthetic fibers.

Gaston County Dyeing Machines meet the full requirements of the ASME code.

Pioneers in Automatically Controlled Dyeing Machinery

Stanley, N. C.

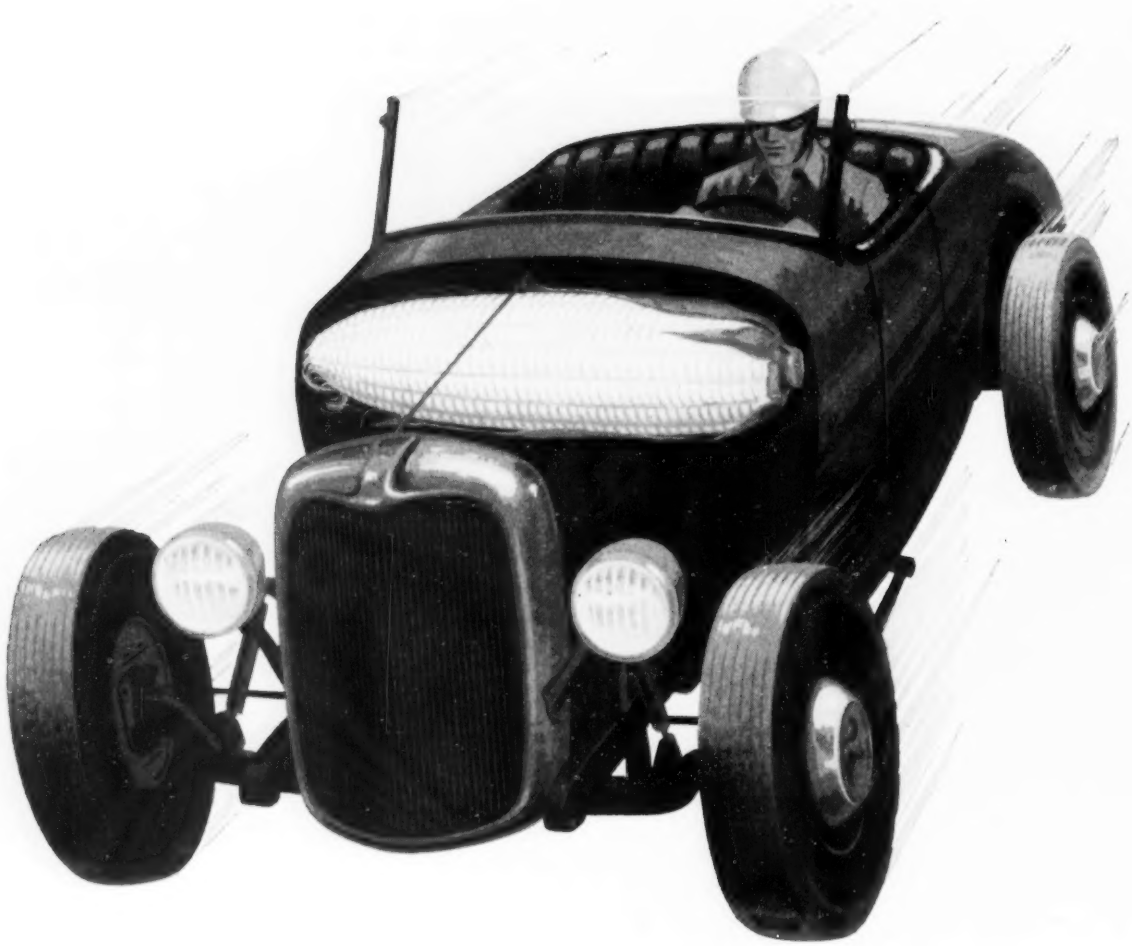
GASTON COUNTY DYEING MACHINE CO.

Albert R. Breen
80 East Jackson Blvd.
Chicago, Ill.

Gaston Co. Dyeing Machine Co.
Terminal Building, 68 Hudson St.
Hoboken, N. J., G. Lindner, Mgr.

The Rudel Machinery Co., Ltd.
614 St. James St., W. Montreal
137 Wellington St., W. Toronto

what's **corn** doing hitting "70" down the pike?



CORN PERFORMS VITAL FUNCTIONS . . . IN MANY UNEXPECTED PLACES

Under the hood of your car for instance...derivatives of corn were used in casting the cylinder heads . . . also in extracting (from its oxide, alumina) the aluminum used in the pistons and other essential parts. This is but one of the numerous examples of how continuous basic research in corn helps American industry . . . helps you.

CORN PRODUCTS IN TEXTILES

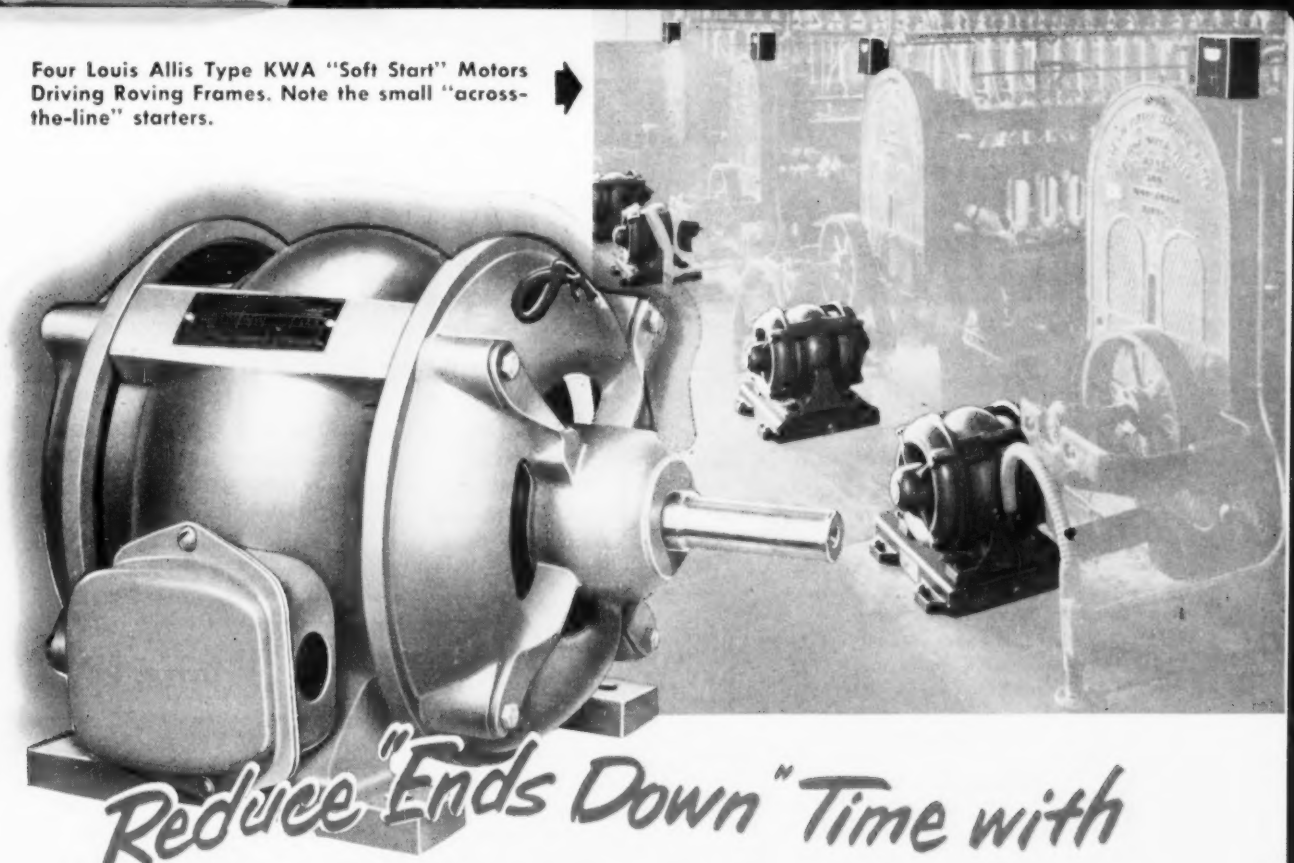
For the textile industry Corn Products Refining Company supplies a variety of specialized starches, gums and dextrins . . . recommended ingredients for many textile processes.

We offer quality in volume supply unexcelled in the field. Complete technical service is available without cost or obligation. If you have a production problem why not check with Corn Products. We welcome your specific technical inquiries.

Manufacturers of
GLOBE®
brand dextrins, gums
GLOBE®
brand starch
EAGLE®
brand corn starch

CORN PRODUCTS REFINING COMPANY, 17 Battery Place, New York 4, N. Y.

Four Louis Allis Type KWA "Soft Start" Motors Driving Roving Frames. Note the small "across-the-line" starters.



Reduce "Ends Down" Time with

LOUIS ALLIS "Soft Start" Motors

Here's another Louis Allis "first" — the motor specifically designed for roving frames, special spinning frames, spoolers, quillers and all applications requiring a smooth, soft start. It reduces installation costs and "ends down" time for increased production.

Special electrical design gives smooth, soft start, gradually increasing acceleration torque. Acceleration is slow, stepless, gradual.

Across-the-line starting is possible due to the special electrical design.

Special motor connections furnish higher torque for "break-in" period. Leads can then be easily changed to the lower torque connection to fully utilize the "soft start" feature.

Excellent jogging characteristics. Design provides accurate, positive positioning.

Louis Allis self-cleaning construction throughout. Smooth, streamlined contours do not let dust or lint adhere to any motor surface.

Sizes and speeds to fit every textile machine application, 2 horsepower to 7.5 horsepower, 900 and 1200 RPM are standard. Other sizes and speeds available on request.

The Louis Allis "Soft Start" Self-Cleaning Textile Motor is the drive you've been looking for. Its slow, easy start without need for an expensive reduced voltage starter — its other outstanding features — make it the answer to *your* drive problems. Write today for further information or contact the Louis Allis district office nearest you.

TE-101

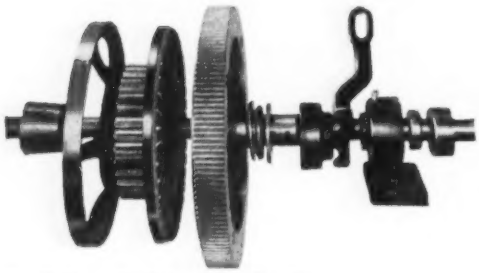
THE LOUIS ALLIS CO., Milwaukee 7, Wisconsin

We specialize in SPECIAL MOTORS

Standard or special — we build it. Whatever electrical or mechanical modifications or features you need, there is a Louis Allis motor that will do your toughest jobs better.

Save hours in downtime with

HUNT'S #1 MOTOR DRIVE



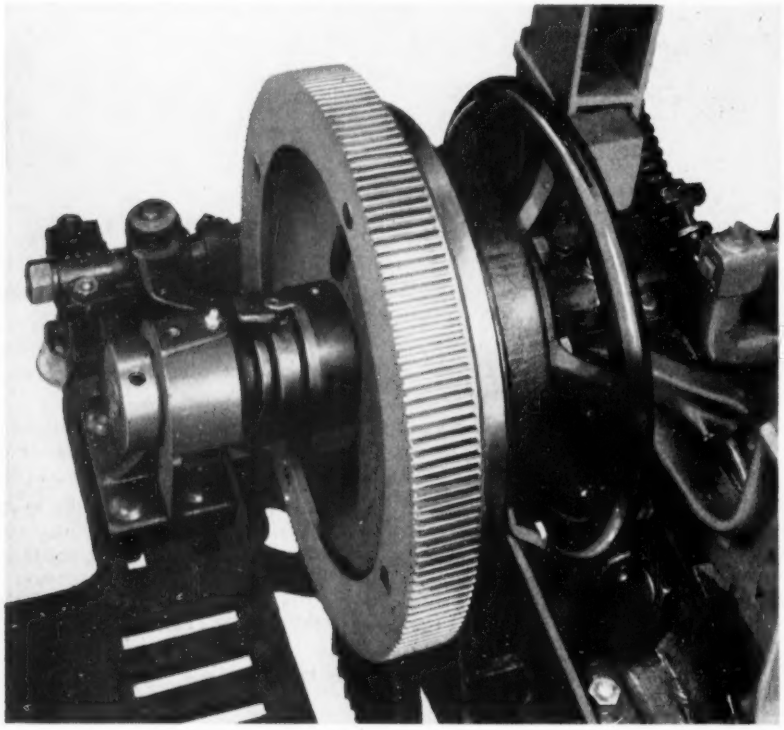
Don't Have To Take It To The Shop

Just a screw driver and wrench will assemble and disassemble motor drive.

Change Drive Gears Without Removing Crankshaft From Loom

You can change the drive gear on the Hunt Motor Drive without removing the crankshaft from the loom. The outer ring of the Hunt Red Head is removable by simply unbolting four retaining bolts and slipping on the new gear. The complete drive gear change can be made in thirty to forty minutes. "Saves several hours downtime."

ADDITIONAL ADVANTAGES OF HUNT MOTOR DRIVES



1. ONE OIL HOLE

One operation oils motor drive, floating bushing shaft and thrust bearing.

2. DECREASES CLUTCH WEAR

Motor gear is perfectly balanced. No tilting when friction is off.

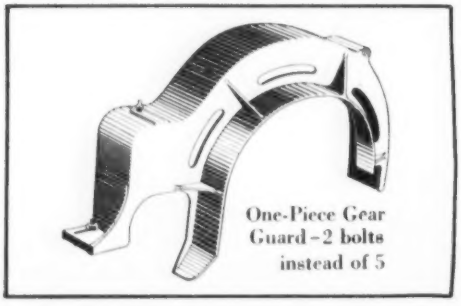
3. EASE OF ASSEMBLY

Entire motor drive can be assembled and disassembled easily without removing crankshaft.

4. TWO ANTI-FRICTION THRUST BEARINGS

Decrease wear and motor load.

5. ALL PARTS ACCURATELY MACHINED—Rigidly inspected



One-Piece Gear Guard–2 bolts instead of 5

Experienced engineers are available any time to come to your mill for a production-line discussion of your loom problems.

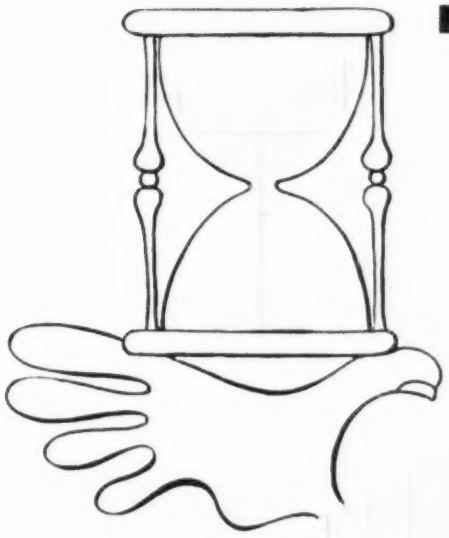
HUNT LOOM & MACHINE WORKS, INC.

200 ACADEMY STREET • GREENVILLE, SOUTH CAROLINA

Manufacturers of: LOOMS • MOTOR DRIVES • SPREADERS • SIZE PUMPS
HYDRAULIC CRANKSHAFT PRESS • LOOM PARTS

time to trim

maintenance costs



In setting up your program to combat high costs during the new year, perhaps maintenance expense offers an opportunity for important dollar savings. It's a controllable expense—and one that can often be sharply reduced through improved lubrication.

If you haven't analyzed this important phase of maintenance recently, we suggest that you talk to a Gulf Sales Engineer. He will make some worth-while suggestions that will help you reduce costs and improve the performance of your equipment.

GULF SERVES INDUSTRY

GULF OIL CORPORATION · GULF REFINING COMPANY
PITTSBURGH 30, PA.

Can *YOU* Compete with Nylon Hosiery Finishing *COSTS* and *RESULTS* Like These?

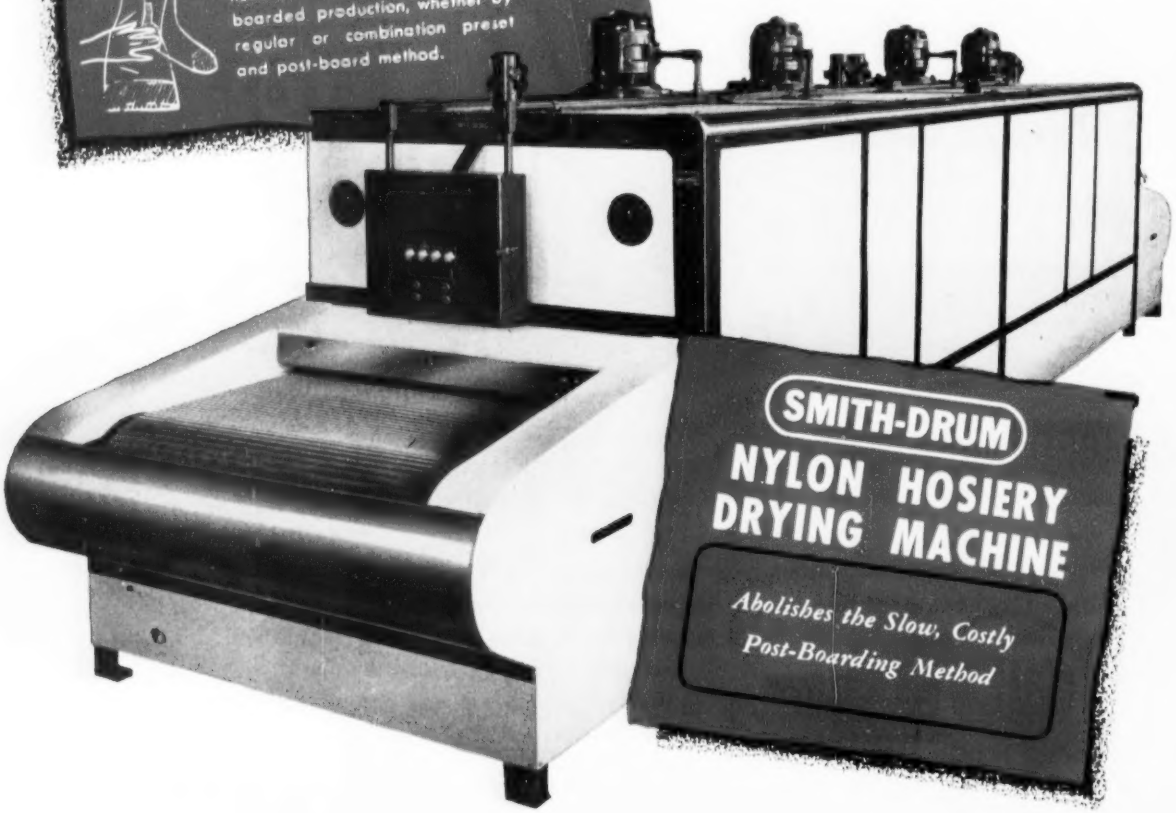
DRYING COSTS CUT 75%
Average labor cost for the drying operation is only 2½c per dozen pairs . . . compared with 12½c by post-boarding methods.
FIRST QUALITY WORK INCREASED 5%-10%
In every installation, first quality work has risen between 5% and 10% . . . and the number of menders has declined proportionately.
APPEARANCE GREATLY IMPROVED
In all installations, appearance of finished hosiery is far superior to post-boarded production, whether by regular or combination preset and post-board method.

The revolutionary SMITH-DRUM Nylon Hosiery Drying Machine has now been in operation in many of the leading mills for well over 2 years. It is conservatively estimated that *more than ⅓ of the annual production* of ladies' full-fashioned nylon stockings, including many branded lines, are now finished on these SMITH-DRUM machines. With *costs* and *results* like those quoted at the left, affecting such a large portion of total production, it is high time to ask yourself if *you* can expect to compete successfully by continuing to use the slow, costly post-boarding method. We will be glad to give you complete information, at your request.

SMITH, DRUM and COMPANY

432 W. Allegheny Avenue, Philadelphia 33, Pa.

Southern Sales Representatives:
PARROTT & BALLENTINE
South Carolina National Bank Bldg., Greenville, S. C.



Next summer

keep mill temperatures even...

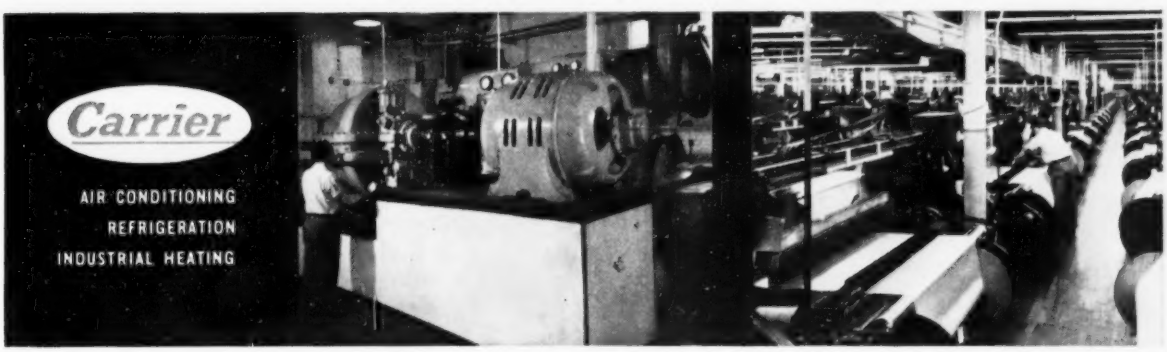
Add Carrier Refrigeration Now!

Your evaporative cooling system — good as it is — probably wasn't good *enough* to keep your mill temperature where you wanted it all this summer.

Didn't you find the hotter it gets outside, the harder it is to hold relative humidity *and mill temperature too?* And on really hot days didn't you have to either raise the humidity or let temperature go up?

It's a common problem, but the solution is simple. Just add Carrier Refrigeration to your present evaporative cooling system. *Then* you will have year-round control of both temperature and humidity. Day in, day out, temperatures will be *even* regardless of outside conditions. And the increase in your plant efficiency will soon pay for the cost of the refrigeration.

Now is the time to act. Get your installation in early and be sure you're ready by spring. Call or write us today, and we can show you how simple it is to add refrigeration, and how even temperatures will increase your profits. Carrier Corporation, Syracuse, New York . . . *for 50 years — the people who know air conditioning best.*



Step by step, this South Carolina mill added Carrier Refrigeration to their evaporative cooling system. Today, 2500 tons of refrigeration, supplied by Carrier Centrifugal Refrigeration Machine (pictured on the left), keep plant efficiencies high by holding temperatures and humidities constant year 'round.

47

Years

★

AS
CONTRACTING ELECTRICAL ENGINEERS
TO THE TEXTILE INDUSTRY

★

J. M. CLAYTON COMPANY
Contracting Electrical Engineers
ATLANTA, GEORGIA

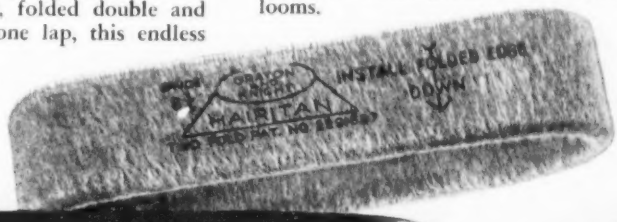
Here's an angle on top performance

G & K Hairitan® Leather Endless Check Straps conform to the angle of the Picker Stick

The camera — faster than the human eye — proves that G&K Hairitan Leather Endless Check Straps *conform* to the angle of the Picker Stick. The strap moves between the tension fingers *in an arc* and travels with the stick to the end of the stroke. It cushions the stick with a balanced cradling action that prevents twisting.

Made of a single piece of choice Hairitan leather, folded double and cemented with one lap, this endless check strap has been engineered to perform its checking function on Draper Looms, *perfectly for months on end.*

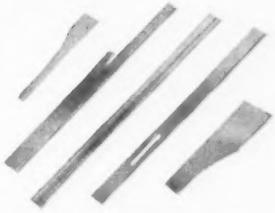
Your Distributor can supply you with these straps in all sizes, either hair-on or hair-off. Also — 25 other groups of items in the famous G&K Orange Line of Textile Leathers to help you boost production on your looms.



Have you seen the new A.L.B.A. report on check straps? This impartial survey proves by stroboscopic photos that the single leather endless strap is best. Write us for your FREE copy.

Pickmaster® Pickers do not bounce the shuttle, or cause the shuttle spur to heat up. Assure smooth shuttle flight and accurate boxing.

Straight Check Straps with low permanent stretch and high resiliency assure smooth shuttle throw. Built to flex uniformly and outlive ordinary straight check straps.



Boxmaster Binder and Box Plate Leathers of special HAIRITAN® Leather with smooth, catch-free edges and deep, velvety surface. Need no waxes or fillers — do not bleed and discolor the filling yarn.

G&K Orange® Line Loom Leathers

1. STOP KINKY FILLING (No shuttle bounce)
2. REDUCE BANG-OFF (Perfect boxing)
3. CUT SHUTTLE COST (No hot spurs)
4. INCREASE PROFITS

MEMO: If your problem is power transmission, see your G&K Belting Distributor for:

HEART OAK® top grade oak tannage
RESEARCH® premium quality special tannage
SPARTAN® combination tannage: resists moisture, fumes

WRITE FOR FREE BELTING MANUAL 101

T-1

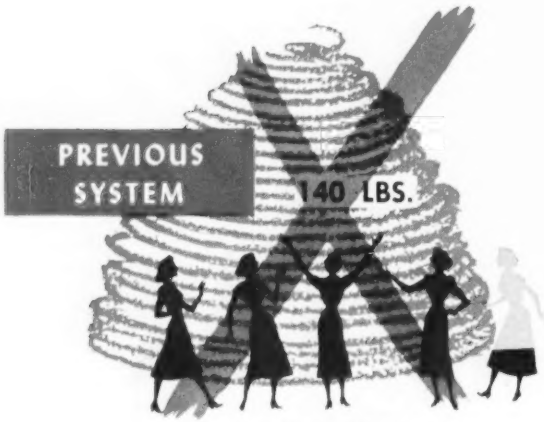
GRATON AND KNIGHT®

GRATON & KNIGHT COMPANY
Established 1851
Worcester 4, Mass.

DIXIE LEATHER CORPORATION

DIXIE LEATHER CORPORATION
Graton & Knight Company Affiliate
Albany, Georgia

Production per operator hour up 5 to 1 WITH WARNER & SWASEY PIN DRAFTERS!



4⅕ OPERATORS

ONE OPERATOR

PREVIOUS SYSTEM

6 sets of drawing

Can Gill		
2 Spindle Gill		
4 Spindle Draw Box		
6 Spindle Weight Box	37 girls	
8 Spindle Draw Box		
12 Spindle Finisher		
32 Spindle Reducer		
48 Spindle Roving		4 girls
TOTAL		41 girls

PIN DRAFTER SYSTEM

Combing:	
6 machines	2 girls
Drawing:	
16 machines	4 girls
Roving	2 girls
TOTAL	8 girls

BRANCH OFFICES

61 Rivulet St., North Uxbridge, Mass.
6910 Market Street, Philadelphia, Pa.
Candler Building, Atlanta, Ga.

The above diagrams show actual production results after a prominent worsted mill modernized with Warner & Swasey Pin Drafters. Compare these figures with your mill's operations. Then, for more complete information, call in our Field Engineer nearest you.

WARNER & SWASEY PIN DRAFTER

- Eliminates costly steps in preparation of sliver for roving
- Produces better, more evenly blended sliver in greater volume
- Reduces waste
- Uses either combed sliver or ball top
- Applicable to French, Bradford, or American systems

YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS WITH WARNER & SWASEY MACHINE TOOLS, TEXTILE MACHINERY, CONSTRUCTION MACHINERY

The unique HERR Conical Ring. Equalizes yarn tension. Self-lubricating.

FREE INFORMATION for spinners and twisters of:

- Nylon
- Cotton
- Wool
- Rayon
- Silk
- Worsted
- Orlon
- Vicara
- Dynel
- Fiber glass
- Fiber blends
- Acrilan
- Dacron

• HERR Conical Rings adapt your equipment for any textile fiber or blend. Whether you use natural, synthetic or a blend of these fibers, you'll get more production at lower cost with conical rings. And you can get conical rings only from HERR. Whatever spinning or twisting problems you have, you'll find HERR glad to offer friendly advice and engineering counsel. Mail the handy coupon below today for FREE information on HERR Conical Rings.

HERR

MANUFACTURING CO., INC.

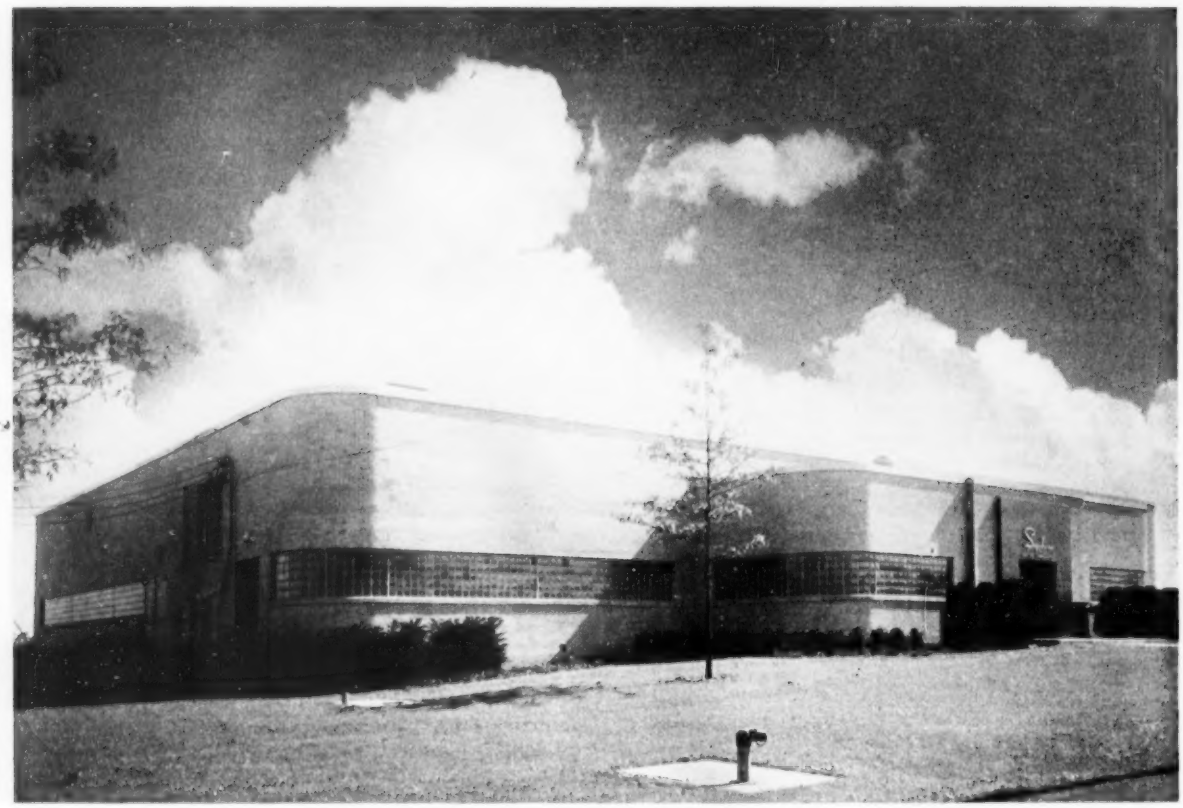
310 FRANKLIN STREET, BUFFALO, N. Y.

HERR Manufacturing Co., Inc.
310 Franklin Street
Buffalo 2, New York

Without obligation, send me complete information on how HERR Conical Rings increase production and cut costs!

Name ..... Title .....
Company .....
Address .....
City ..... State .....

A Lockwood Greene Project



New mill for Sapphire Hosiery Corporation, Telford, Pa.

A RECORD OF SERVICE IN KNIT GOODS

as measured by:

Features of this full-fashioned hosiery mill, pictured above, include one story, completely air conditioned, long span construction providing clear floor areas, rigid floor on ground and ready means for expansion.

New Plants	**37**
Major Additions	**67**
Minor Additions, Reports, Appraisals	**197**
Total Engagements	**301**
Cost of New Plants and Major Additions	**$35,000,000**

LOCKWOOD GREENE

ENGINEERS - ARCHITECTS

Boston 9, Mass.
40 Central Street

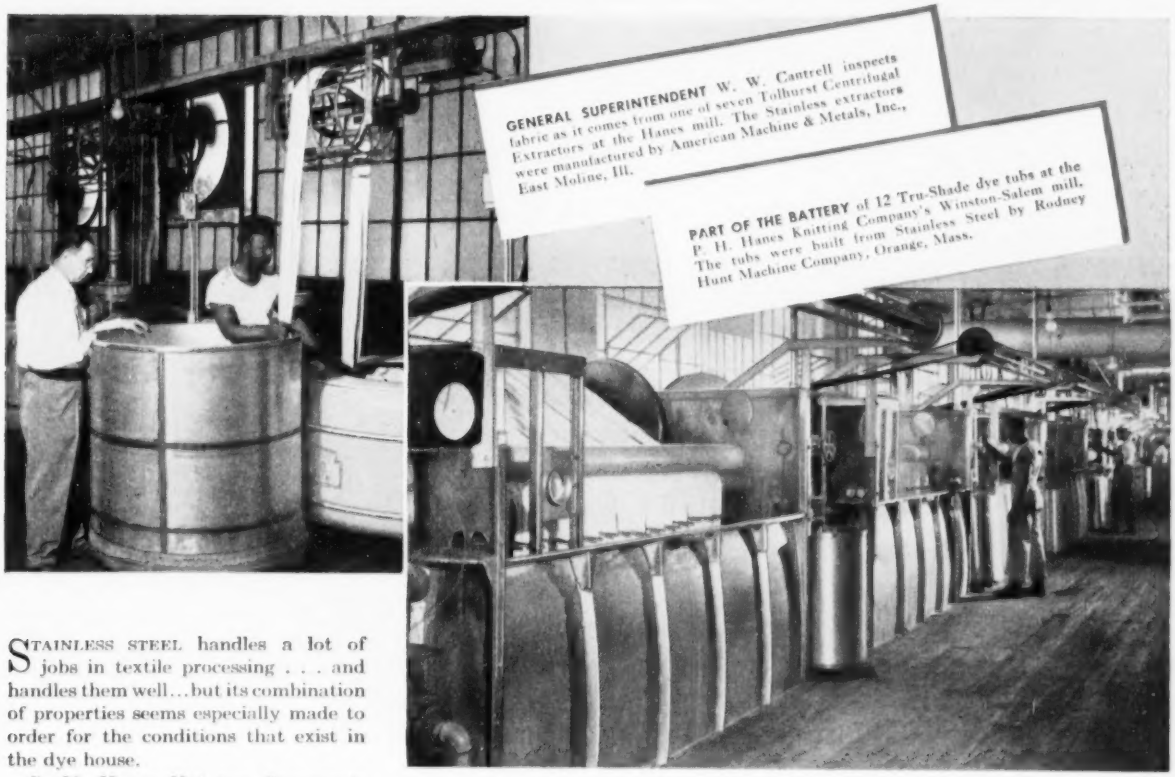
New York 20, N. Y.
10 Rockefeller Plaza

Spartanburg, S. C.
Montgomery Bldg.

215 St. James Street, West, Room 601, Montreal, Canada

LONG-LASTING, EASY-TO-CLEAN STAINLESS STEEL

is P. H. Hanes Knitting Company's choice for extractors and dye tubs



GENERAL SUPERINTENDENT W. W. Cantrell inspects fabric as it comes from one of seven Tolhurst Centrifugal Extractors at the Hanes mill. The Stainless extractors were manufactured by American Machine & Metals, Inc., East Moline, Ill.

PART OF THE BATTERY of 12 Tru-Shade dye tubs at the P. H. Hanes Knitting Company's Winston-Salem mill. The tubs were built from Stainless Steel by Rodney Hunt Machine Company, Orange, Mass.

STAINLESS STEEL handles a lot of jobs in textile processing . . . and handles them well...but its combination of properties seems especially made to order for the conditions that exist in the dye house.

P. H. Hanes Knitting Company's mill at Winston-Salem, N. C., passes along a favorable report on the Stainless Steel equipment in its dyeing and bleaching department. Seven centrifugal extractors, installed in 1941, and 12 dye tubs, installed between 1946 and 1948, owe their performance records to Stainless Steel construction.

General Superintendent W. W. Cantrell says, "The things we like most about Stainless Steel equipment are that Stainless is long lasting, easily cleaned and free from maintenance problems."

The smooth, dense, durable surface of Stainless Steel guards against snagging of threads and fabrics. The ease with which it can be cleaned prevents color carry-over even when going from a dark to a light shade. And there's no chance of rust spots or stains on the fabric from the Stainless equipment.

If you're using Stainless equipment today, you've seen what a difference it can make in processing operations. It will pay you to look further for jobs where you can take advantage of its unique combination of properties. And when you do, ask your equipment fabricator to use perfected, service-tested U·S·S Stainless Steel.

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
NATIONAL TUBE DIVISION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U·S·S STAINLESS STEEL

SHEETS · STRIP · PLATES · BARS · BILLETS · PIPE · TUBES · WIRE · SPECIAL SECTIONS

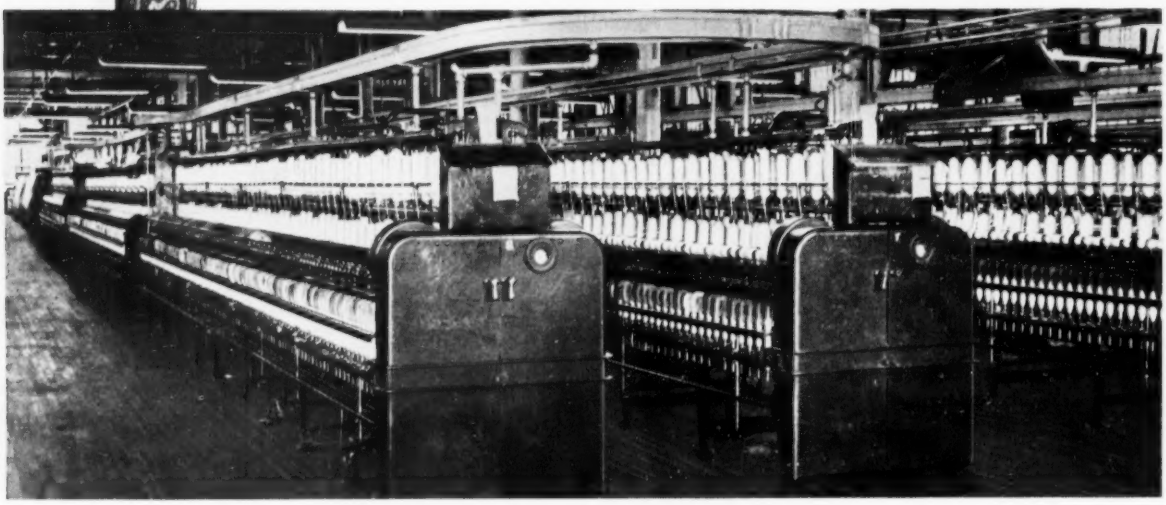
3-08

USS

UNITED STATES STEEL

"We CUT MAINTENANCE COSTS by 13%"

... says Norman Garlington of Brookside Mills, Knoxville, Tenn.



To turn out 15 million yards of cotton and blended fabrics yearly, Brookside Mills keeps its 65,000 spindles and 1046 looms working smoothly with Sinclair Textile Lubricants.

Two years ago, General Superintendent Norman Garlington called in a Sinclair Lubrication Engineer and asked him to make recommendations for better and more economical lubrication.

After a thorough study of the mill, the Sinclair Engineer set up a comprehensive and simplified lubrication procedure and recommended specially developed Sinclair Textile Lubricants.

Since the new procedure was adopted, Mr. Garlington reports that, "Sinclair Textile Lubricants have cut our maintenance costs by 13%. In addition, we have *reduced* inventory . . . *saved* storage space . . . and *cut* misapplication."

About important extra services, Mr. Garlington writes, "The Sinclair Research Laboratory has been consulted on several tough problems and results were quickly obtained."

To get in touch with a Sinclair Lubrication Engineer, call your local Sinclair Representative or write to Sinclair Refining Company, 600 Fifth Avenue, New York 20, N. Y.

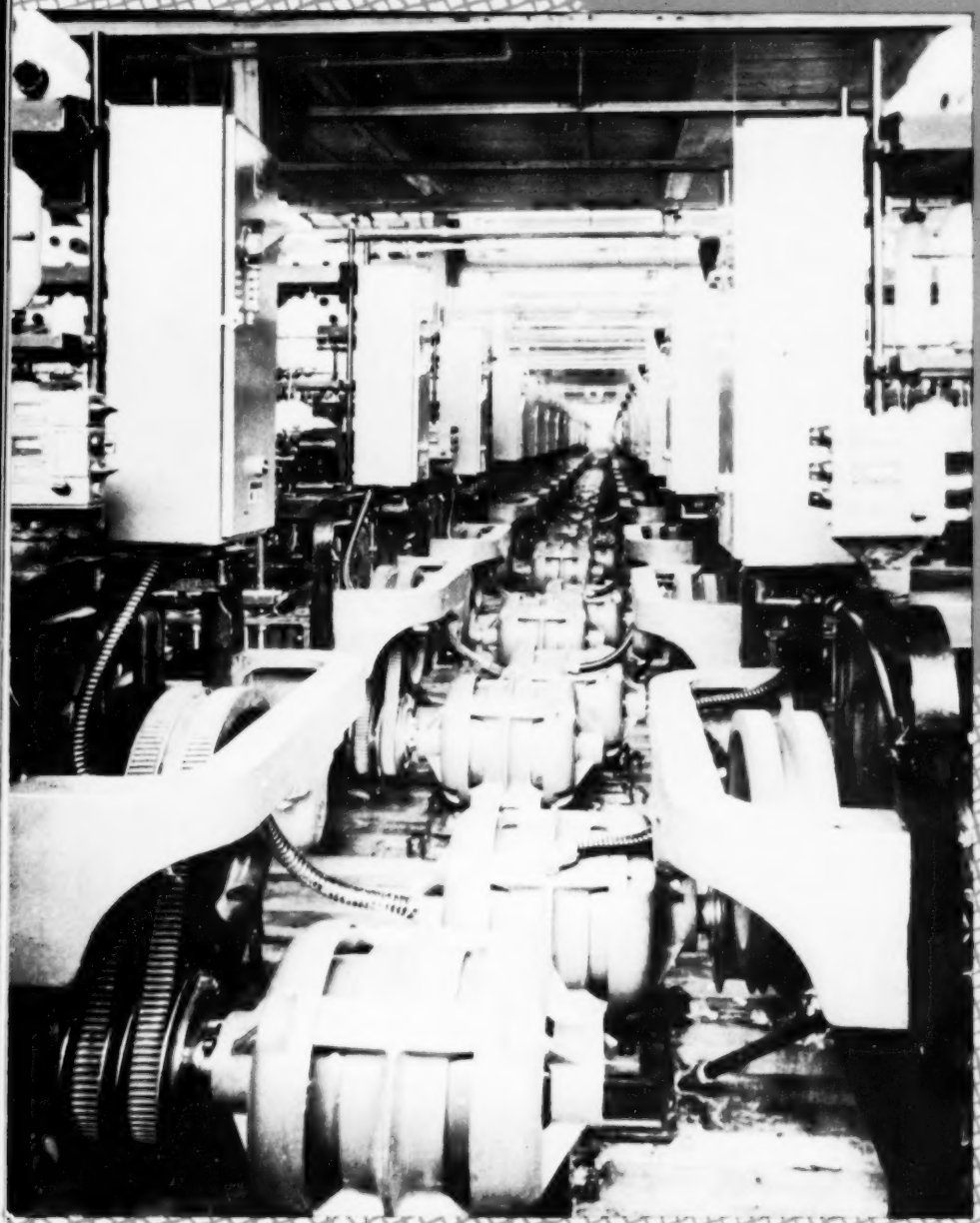
SINCLAIR TEXTILE LUBRICANTS

ALLIS-CHALMERS

TEXTILE DRIVES

for the Best Combination of . . .

MOTOR, DRIVE and CONTROL



FROM ONE RELIABLE SOURCE

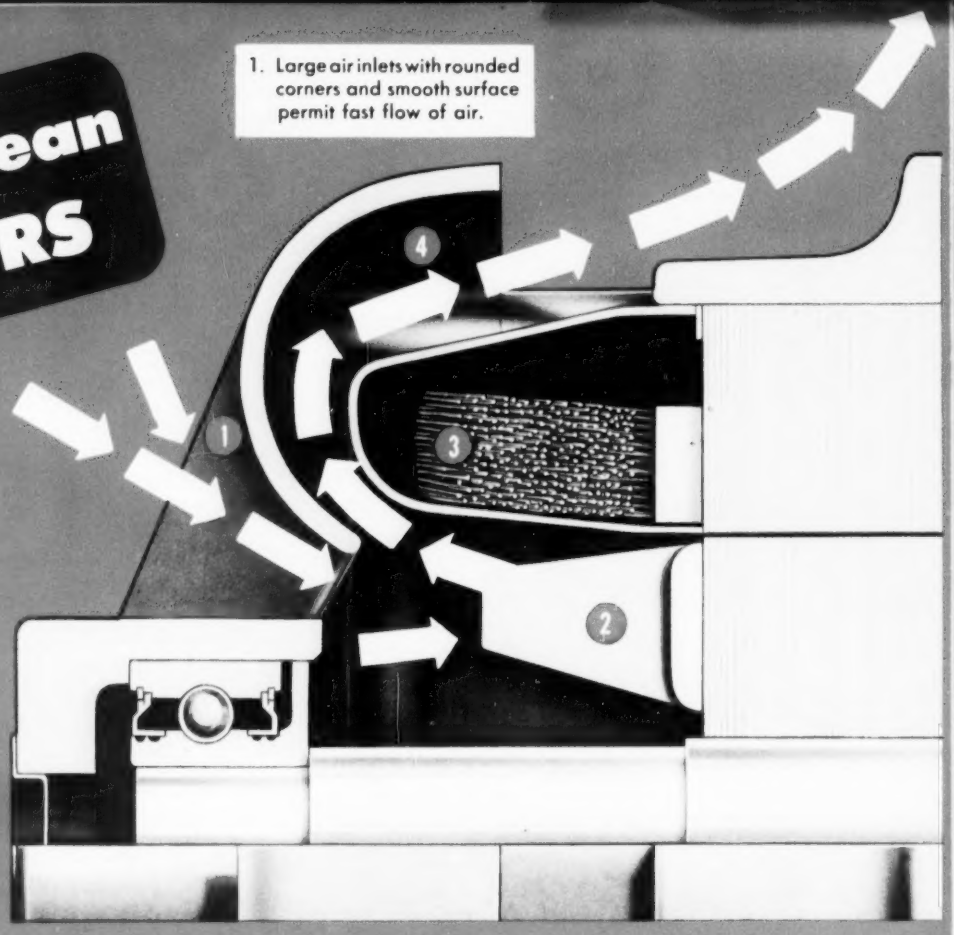
By ordering these components in one "package" from Allis-Chalmers you not only enjoy the special design features of each as described on the following pages — but there is also undivided responsibility for their proper application, operation and service. A-3962

ALLIS-CHALMERS

A-C ALLIS CHALMERS

Quick-Clean MOTORS

1. Large air inlets with rounded corners and smooth surface permit fast flow of air.



2. Big fans keep cooling air moving swiftly.

3. Protected stator coil ends eliminate lint catching pockets and projections.

4. Large air outlets are shaped to aid air flow and keep air velocity high.

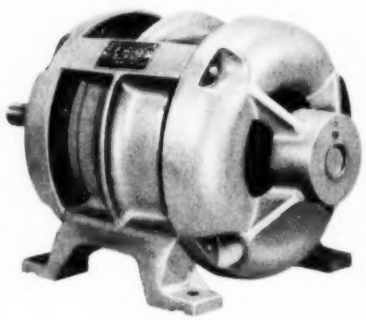
Lint Can't Clog It!

Lint and fly blow right through the *Quick-Clean* textile motor. Wide open design, rounded edges, smooth interior surfaces, and powerful fans keep air moving through the motor fast. Accumulation of lint and fly is practically eliminated. . . . Motor runs cool.

Quick-Clean motors are equipped with sealed bearings. As packed at the factory, bearings will operate several years without attention.

For more details, call your nearby Allis-Chalmers Authorized Distributor or District Office. Or write Allis-Chalmers, Milwaukee 1, Wisconsin.

Quick-Clean is an Allis-Chalmers trademark.



RATINGS

Type — Open, fan ventilated.

Hp — 2 to 75.

Current — 60 cycle; 220, 440, 550 volts; 2 or 3 phase.

Characteristics — Low starting current, normal starting torque.

Temperature — 40° C rise, continuous duty.

A-C ALLIS-CHALMERS

ALLIS-

TEXROPE

Variable Speed Drives

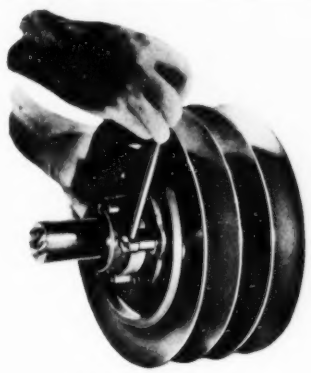
Magic-Grip bushing for fast mounting and demounting. One screw makes or breaks vise-like grip of bushing on motor shaft.

Easy adjustment — Simply turn a single adjusting screw using a lever rod that slips through a hole in the head of the screw.

Two way mounting — Sheave can be mounted on motor shaft so adjusting screw is either toward or away from motor bearing.

Fit Speed to Need

WITH ONE SHEAVE INSTEAD OF 2 OR 3



SPECIFICATIONS

For use with Q or R section belts on motors ranging from 1½ to 30 hp with motor speeds from 900 to 1800 rpm.

Why waste time changing sheaves each time you change yarn numbers? The *Vari-Pitch* sheave provides the exact speed you need for a wide range of numbers. Best of all, speed changing is both quick and easy.

Adjusts from Motor Side

New design of the wide range *Vari-Pitch* sheave permits adjustment from the motor side instead of the frame side where space is limited. New design also eliminates fumbling with screwdrivers. Turning a single screw with a straight lever rod is all that's needed to change sheave diameter. In addition, *Magic-Grip* taper bore bushing has single lock nut for fast mounting.

Whether you are building or modernizing, it will pay you to discuss your drive problems with an Allis-Chalmers Authorized Distributor or District Office. Or write Allis-Chalmers, Milwaukee 1, Wisconsin.

Texrope, Vari-Pitch and Magic-Grip are Allis-Chalmers trademarks.

CHALMERS

ALLIS-CHALMERS
CONTROL

Get Specialized Control
ENGINEERED WITH THE DRIVE

A line of full voltage and reduced voltage motor starters is available to meet the requirements of any type drive for the textile industry.

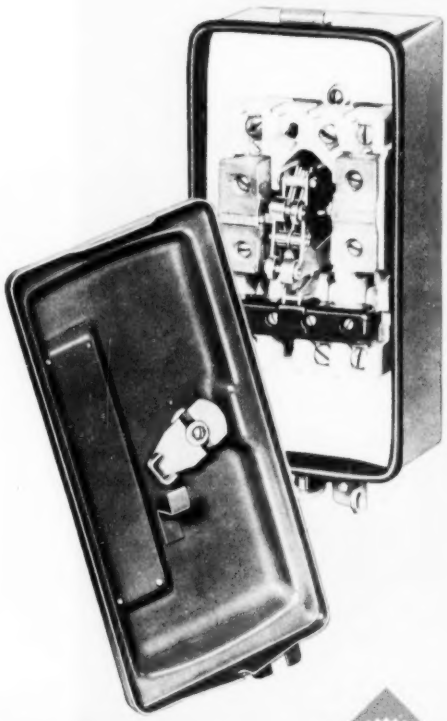
Typical is this new loom motor manual starter. Its toggle action is preferable to push button operation for reasons of convenience when mounting starter in high or low positions.

Fire Hazard Eliminated

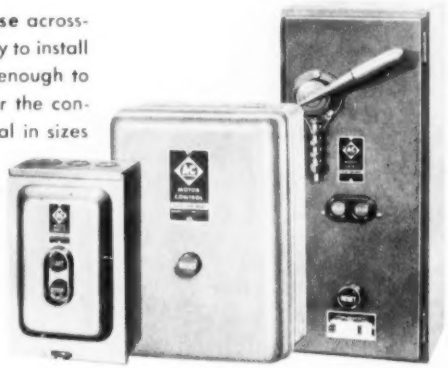
Protected type overload relays are supplied on these starters. A molded asbestos composition relay base fits into the porcelain starter base. It completely encloses the heater unit in a fireproof housing that won't carbonize from extreme heat of relay burnouts occurring under circuit fault conditions. Enclosures may be lint-proof with interlocked cover handles for safety.

Slow speed starters for card drives and roving frame drives are also available.

Solve your control problems along with your drive problems by calling an Allis-Chalmers Authorized Distributor or District Office. Or write Allis-Chalmers, Milwaukee 1, Wisconsin.



These general purpose across-the-line starters are easy to install and wire — compact enough to be installed on or near the controlled machine. Manual in sizes 0 and 1; magnetic in sizes 0-7 for motors from fractional to 600 hp; combination in sizes 0-5. Special enclosures are also available.



Manual Magnetic Combination

ALLIS-CHALMERS

Milwaukee 1, Wisconsin

THE ORIGINATORS OF SHAFT-MOUNTED SPEED-REDUCTION DRIVES

announce

The New Speed Reducer

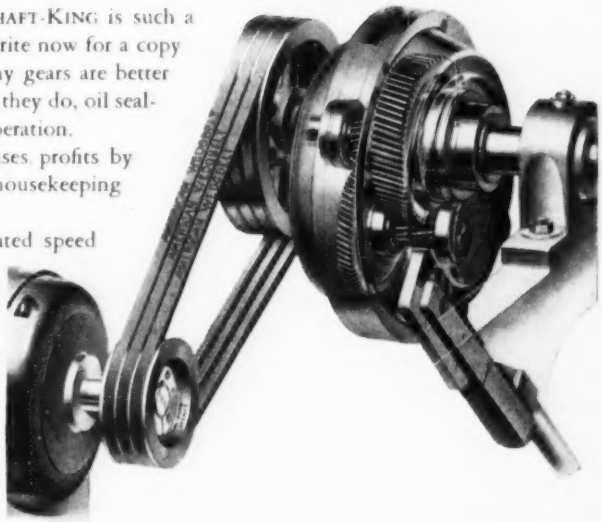
Power at the Speed You Need

You owe it to yourself to find out how and why SHAFT-KING is such a tremendous advance over all other speed reducers. Write now for a copy of the new SHAFT-KING Catalog and you'll learn why gears are better and longer-lasting, bearings best for the particular job they do, oil sealing unique in its advantages and super-efficient in operation.

It will pay you to learn how SHAFT-KING increases profits by reducing down-time, operating costs, maintenance, housekeeping and investment.

American introduced the world's first shaft-mounted speed reducer in 1940 and since then over 80,000 have been installed in every industry and on almost every type of machine. The New SHAFT-KING is the result of American's long experience and in-use testing, so you can be sure that it is the best Speed Reducer ever built in its range.

Write today for your free copy of the new 20-page SHAFT-KING Reduction Drive Catalog. No obligation, of course.



At the PROFIT End of the Machine

Power Transmission by

AMERICAN

PULLEY COMPANY

Other products: Wedg-Tite Sheaves • Wedgbelts • Backstops • Adjustable-Speed Drives • Econ-O-Matic Motor Bases • Steel Conveyor Pulleys • Hi-Torque Motor Pulleys • Solid and Split Shaft Collars • Steel Split Pulleys

The American Pulley Company
4232 Wissahickon Ave.,
Philadelphia 29, Pennsylvania.

Gentlemen:

- ☐ Please send me a copy of your new SHAFT-KING Catalog today.
- ☐ Send me the name of your local distributor.
- ☐ We need help on a slow speed drive problem.

Name _____

Firm Name _____

Address _____

City _____ Zone ____ State _____

NO SOFT SPOTS

with this NEW Taylor Control

Taylor Squeeze Roll Pressure Controls in use on a high speed Rayon Slasher installed in a well-known Southern Mill.

For the first time, you can know just how much pressure you have on both ends of your size box squeeze roll. Taylor's new Squeeze Roll Pressure Control measures and controls actual *pounds of pressure* applied *directly* to the roll . . . unaffected by friction or leaking air.

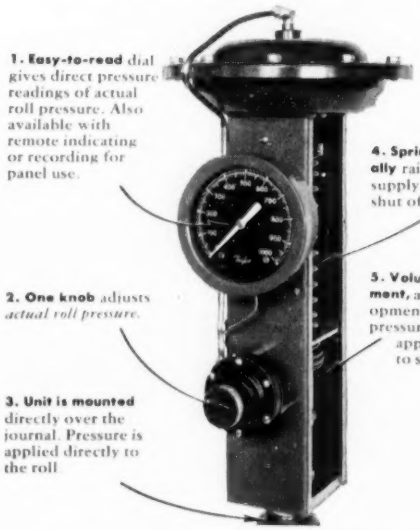
RESULT: 1. No soft-spots in yarn. Out-of-round roll conditions quickly detected. **2.** Uniform penetration of size.

One unit is installed on each end of the roll. Each can apply up to 1000 pounds pressure, for a total pressure of 2000 pounds plus the weight of the roll.

For calender rolls, dye padder rolls, and other higher pressure applications, a similar unit is available with a 2500 pound capacity . . . to deliver up to 5000 pounds pressure plus the weight of the roll, when used in pairs.

Taylor Squeeze Roll Pressure Control has been thoroughly field tested in several textile mills, for over a year. A logical outgrowth of Taylor's development of the volumetric measuring principle for difficult tension and pressure measuring jobs. Other units are available for pressures up to 200,000 lbs. and tensions from 5,000 to 20,000 lbs.

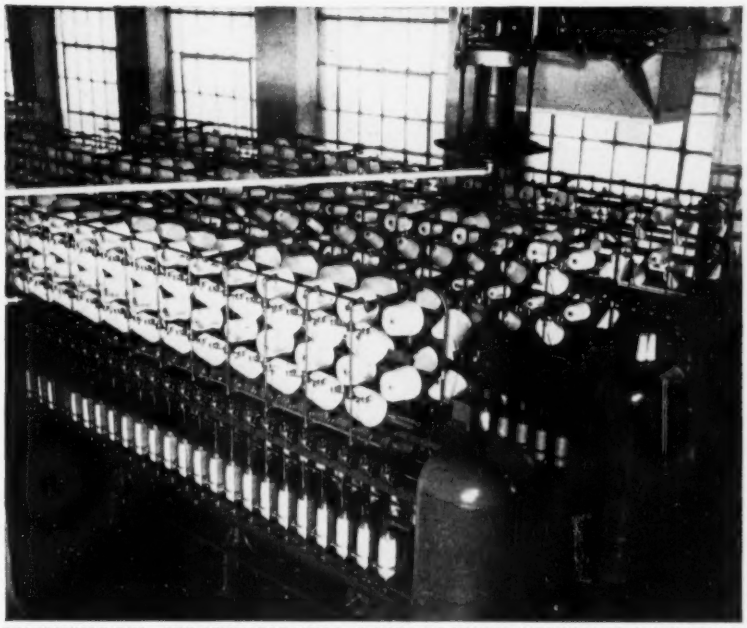
For full details on Taylor's Squeeze Roll Pressure Control, or for help on any similar pressure control problem, write: Taylor Instrument Companies, Rochester, N.Y., or Toronto, Canada.


1. Easy-to-read dial gives direct pressure readings of actual roll pressure. Also available with remote indicating or recording for panel use.
2. One knob adjusts actual roll pressure.
3. Unit is mounted directly over the journal. Pressure is applied directly to the roll
4. Spring automatically raises roll when supply pressure is shut off.
5. Volumetric element, a Taylor development, measures pressure being applied directly to squeeze roll.

Instruments for indicating, recording and controlling temperature, pressure, flow, liquid level, speed, density, load and humidity.

TAYLOR INSTRUMENTS MEAN ACCURACY FIRST

United Merchants & Manufacturers, Inc. reports great flexibility in use of MODEL 10 RING TWISTER



STATESVILLE DIV., THE SEMINOLE MILLS, A UNIT OF UNITED MERCHANTS & MANUFACTURERS, in Statesville, North Carolina, uses Model 10 Ring Twisters. Plied yarns from the large twister packages are used as direct warping and winding supply.

"The only ring twister that gives us flexibility for all our yarns."

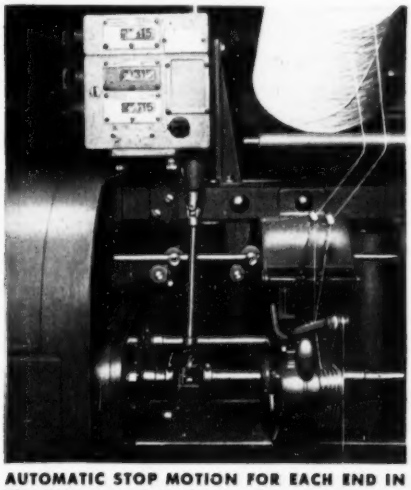
STATES THIS TEXTILE MANUFACTURER

United Merchants & Manufacturers, Inc. believes in thorough testing of basic equipment used throughout their mills.

That's why when United Merchants & Manufacturers installed our Model 10 Ring Twisters in their Statesville Div., The Seminole Mills, a number of test runs were made. Seminole works only with synthetic yarns but the Twister was tested on other yarns as well—glass, nylon, cotton and combination yarns. In this way, the extent of the use of the Twister in their Mills was determined.

"Test runs showed," says United Merchants & Manufacturers, "that the Universal Model 10 Ring Twister is the only ring twister that gives us the flexibility needed for all of our yarns."

Endorsements such as this are typical of the comments made by users of Universal twisting and winding equipment—and evidence why Universal is the world's largest manufacturer of this type of textile machinery. More packages of every shape, size and fiber are twisted and wound on Universal machines than on any other make.



AUTOMATIC STOP MOTION FOR EACH END IN THE PLY is an exclusive feature of the Model 10 Ring Twister.

EXCLUSIVE AUTOMATIC STOP MOTION

Only the Model 10 Ring Twister has automatic stop motion for each end in the ply. Located just above the feed roll it stops the spindle and feed roll instantly whenever a break or runout occurs.

As a result, drop ply cannot get into the packages — roller laps are eliminated — and ends are tied in the singles before twist is inserted, resulting in smaller, less troublesome knots. If you are not already using Model 10 Ring Twisters, why not plan on installing them now?

LEESONA

UNIVERSAL WINDING COMPANY

P. O. Box 1605, Providence 1, R. I.

Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles; Montreal, Hamilton, Canada; Manchester, England; Paris, France; Basle, Switzerland

Agents in every principal textile center throughout the world

Winding and Twisting Machinery for Natural and Synthetic Yarns

When you convert old frames for LONG-DRAFT SPINNING

Call your Armstrong man-talk over your

LET YOUR ARMSTRONG MAN be your "consultant" on roll covering. He can often save you time and trouble. Call him in . . . anytime.

Today, many mills are getting extra production from their regular draft frames by converting them to long-draft spinning.

If you're considering a change of this kind, don't overlook the importance of checking your roll covers. The heavier roving in long-draft spinning may require a change in the type of cot you use.

You'll find it helpful to discuss this problem with your Armstrong man. He's familar with all long-draft installations—usually you'll find he's had experience with the very equipment you're planning to put in. He'll be able to make recommendations you can count on.

His specialized training and experience are backed by Armstrong's years in the textile field and close contact with machinery manufacturers. It's a combination that should—and does—provide the answer to almost any question involving roll covers.

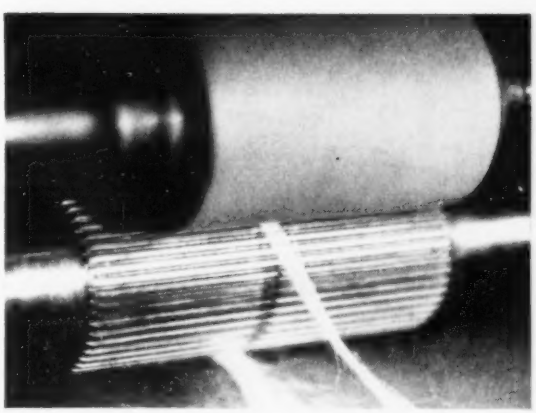
ARMSTRONG'S

roll covering requirements with him

And when you need new cots, you'll find the kind you need in the Armstrong Line. In addition to cork, Armstrong makes long-wearing, lap-resistant Accotex® Cots. They're available in several formulations of cork-and-rubber as well as straight rubber. Each type is made in varying degrees of firmness to provide the right amount of cushion for a given spinning job.

Be sure to call on your Armstrong man whenever you need help on a roll covering problem. In most cases, he'll be at your mill within a day of your call. One more thing—if you want samples of Armstrong's Accotex Cots for testing on your frames, you can get them from your Armstrong man, or you can write Armstrong Cork Company, Textile Products Department, 3602 Arch Street, Lancaster, Pennsylvania. All Accotex products are available for export.

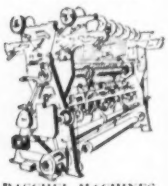
ACCOTEX COTS



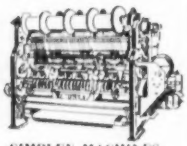
LONG-WEARING ACCOTEX COTS RESIST LAPPING. A break in the yarn means almost instant lapping with most roll covers . . . but not with Accotex Covers. Every Accotex Cot contains certain electrolytes that remove the basic cause of lapping—the attraction between electrical charges in the moisture layers on both cot and fiber. This lap resistance gives broken ends plenty of time to reach the scavenger roll before lapping can occur. It practically eliminates ends down due to lapping. Remember, too, Accotex Cots give up to six years' spinning with a minimum of rebuffing.

THE REINER LINE:

TRICOT MACHINES



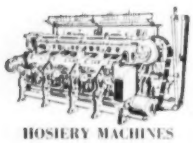
RASCHEL MACHINES



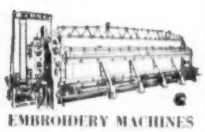
SIMPLEX MACHINES

WARPERS

CREELS



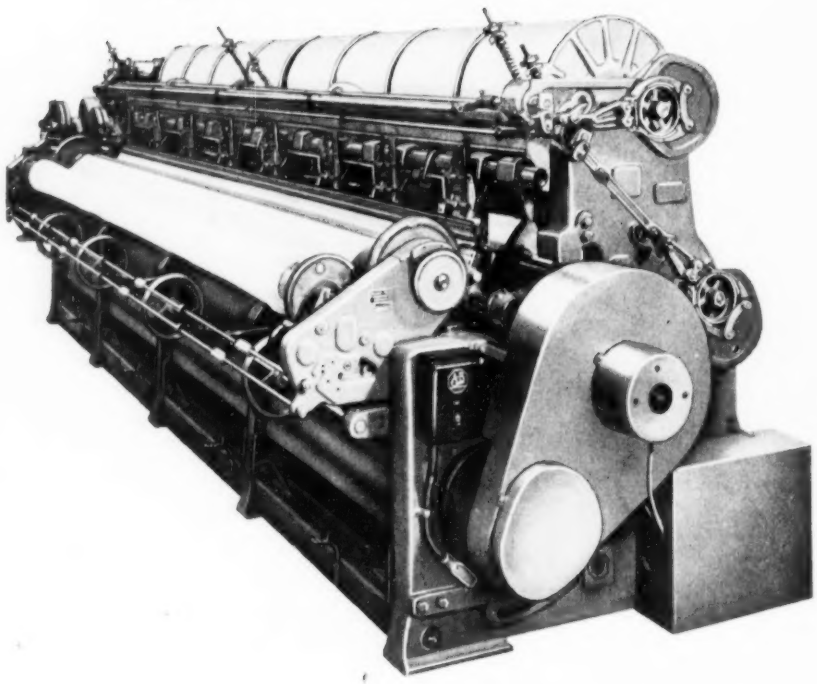
HOSIERY MACHINES



EMBROIDERY MACHINES

Ready spare part service available for all Reiner equipment.

Tricot at its best!*



HERE is a machine that adds quality to quantity. It has earned an excellent mill record in 'round the clock operation for rugged, dependable performance and volume yield of flawless tricot at high cruising speeds.

Its many new features are the result of Reiner know-how in building machines for trouble-free, economical and versatile production. To those interested, we will be glad to send a richly illustrated catalog.

We also manufacture a full line of warpers and creels; in short, warp knit mill equipment from cone to knitted fabric.

The Tricot Machine is available as a 2- and 3-bar unit, with 2-bar convertible to 3-bar use and vice-versa — Automatic beam letoff — All gauges — Long needles for coarse gauge fabrics — Automatic oil feed lines throughout — Pattern wheel or chain link drive — Positive cloth take-up — Rapid acceleration and deceleration unit — and other features. Knitting widths 168" and 84".

*Registered Trademark

1903 50th Anniversary 1953

ROBERT REINER INCORPORATED

10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 **550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY**

L. F. Dommerich & Co., Inc.

Executive and General Offices

271 MADISON AVENUE

NEW YORK 16, N. Y.

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●

BUSINESS ESTABLISHED 1840

Rayon...Acetate...Nylon...Orlon...Dacron

HONEYWELL now extends the scope of the *Moist-O-Graph* principle . . . making a single instrument capable of measuring percent moisture in *any* warp, simply by turning a switch.

used by leading mills

For mills which process varied types of fibres using different sizing materials, this advancement means that the full advantages of complete slasher control are always realized. The method has been thoroughly tested in both laboratory and mill. It is working today on acetate, viscose and nylon yarn, spun yarn, and worsted and rayon blend—sized with gelatin, starch, Stymer or Orthocryl. Among the leading mills which use *Moist-O-Graph* are:

Pansy Weaving Company — Textron
Stehli and Company — Beaunit Mills
Green Halgh Mills — Canadian Celanese
Chicopee Manufacturing Company

reads regain directly

Today's *Moist-O-Graph* incorporates features which Honeywell has developed following more than 15 years of pioneering experience in this field. Notable among these features are the instrument's direct reading scale and chart . . . the slasher operator doesn't have to interpret, consult tables. He sees on the instrument an indicated and recorded measurement that immediately tells him actual percent regain. And this calibration is made *at the factory* . . . does not require field adjustment. The measuring instrument is an *ElectroniK* recorder, famous throughout industry for accuracy and dependability.

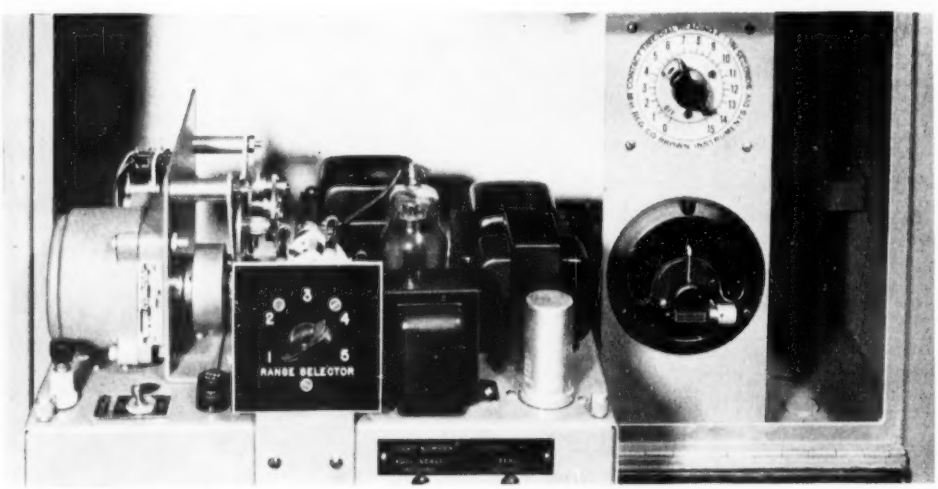
multiple range

When there's a change in the fibre fed to the slasher, or in the size used, all the operator has to do is turn a selector switch to the proper range. The calibration then applies to the new operating conditions. The only other adjustment that the operator has to make is to set the index at the desired regain.

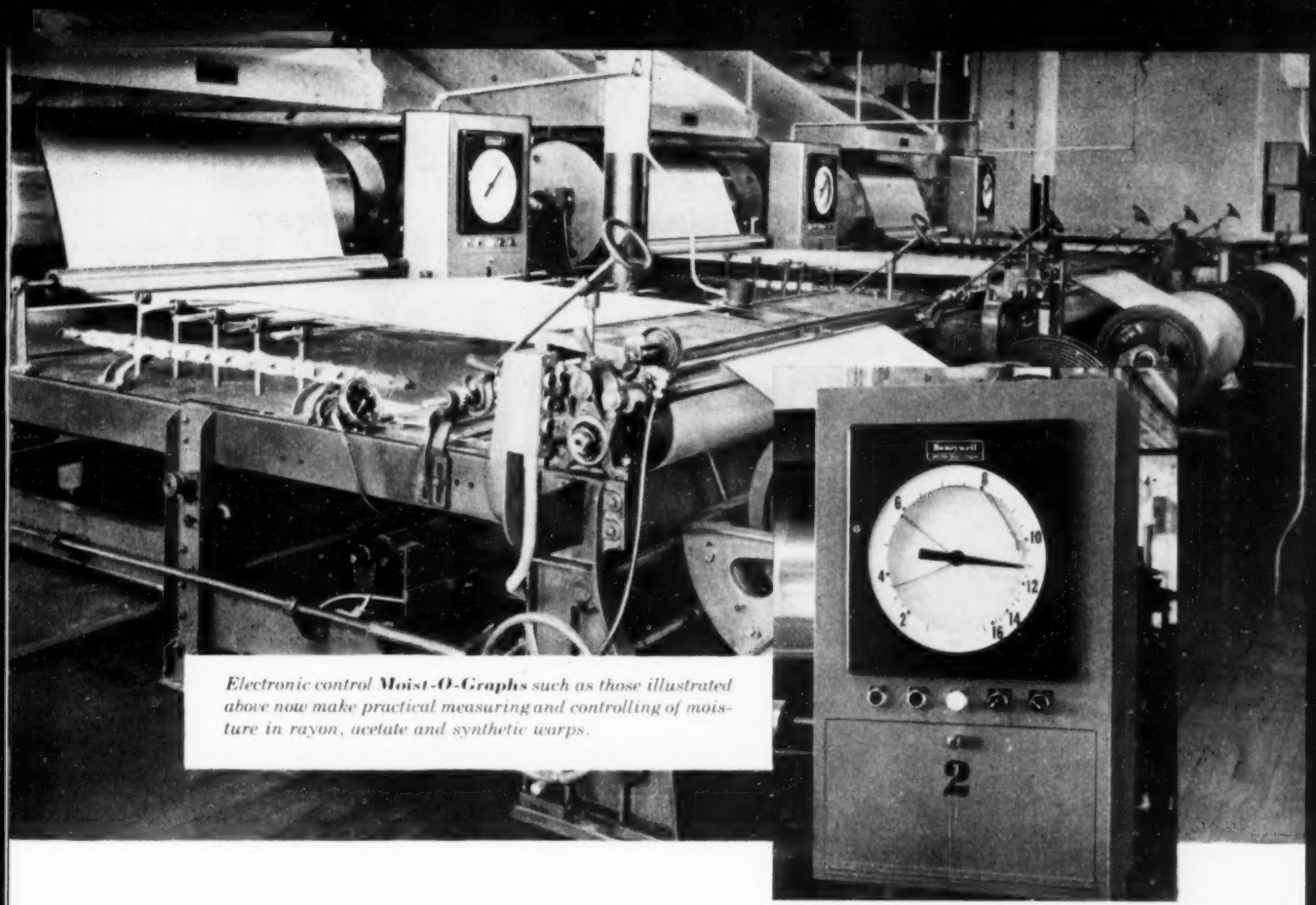
part of complete slasher system

For automatic control of regain, the *Moist-O-Graph* regulates slasher speed to maintain the correct drying rate. The result is that the slasher operates at the maximum speed possible for a given warp. This control is integrated with other Honeywell instruments, which are combined into complete systems for efficient, centralized regulation of the entire slashing process.

Moist-O-Graph®—
of rayon,



A turn of this switch changes the ***Moist-O-Graph*** *calibration to read percent regain directly, for any fibre, blend and/or size.*



Electronic control ***Moist-O-Graphs*** *such as those illustrated above now make practical measuring and controlling of moisture in rayon, acetate and synthetic warps.*

for controlled regain acetate and synthetic yarns

REGARDLESS of the fibre you're processing, you can measure and control warp moisture directly by means of the versatile, electronic multi-range *Moist-O-Graph*.

In leading mills, such as those listed on the opposite page, this instrument is making possible better weaving through more uniform warp, by controlling at uniform moisture . . . providing correct moisture . . . preventing wet warp . . . eliminating overdrying . . . and assuring uniform stretch.

Added to this benefit of better weaving is the attendant increase in slasher room production, made possible by the fact that the *Moist-O-Graph*:

- *prevents overdrying of yarn, resulting in fewer stoppages*
- *makes possible higher running speed*
- *provides operation records*

Our local Honeywell engineering representative will be glad to give you full details on how this instrument can help improve slasher efficiency in your mill. Call him today . . . he is as near as your phone.

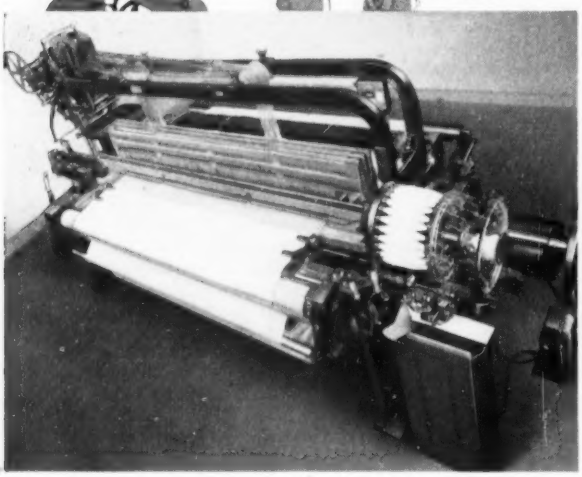
MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, 4492 Wayne Ave., Philadelphia 44, Pa. Sales and service offices in more than 110 principal cities of the United States.

● **REFERENCE DATA:** Write for new Bulletin No. 54-66.

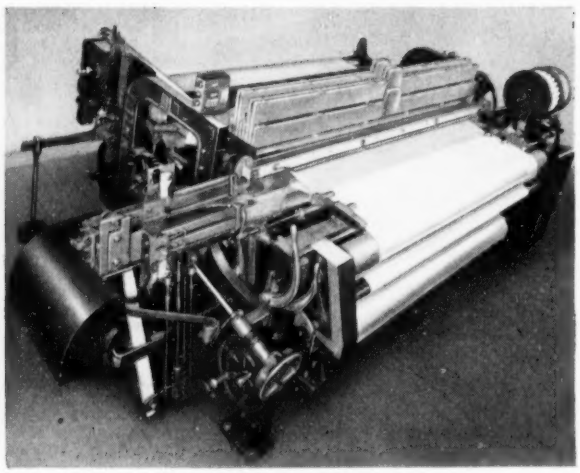
MINNEAPOLIS
Honeywell
BROWN INSTRUMENTS
First in Controls

To Give Quickest Service on

ORDERS FOR "Plain Fare"



NEW C&K 2 x 1 BOX FILLING-MIXING LOOM equipped with rotary magazine . . . and HEAD MOTION.



NEW C&K 2 x 1 BOX FILLING-MIXING LOOM equipped with rotary magazine . . . and END CAM.

. . . install C&K's Newest FILLING-MIXING LOOMS

Yes, you can take orders for single-color production — and make your cloth faster and with more profit than you ever imagined — with these new, single-purpose, rotary magazine looms. These new additions to C&K's long-established line of Filling-Mixing Looms cost less to buy and operate, turn out better cloth at 25% higher speeds . . . mile after mile of it, and *all of it* the same top quality.

Get the whole story on these proven products of C&K's long experience in building Filling-Mixing Looms. *See C&K today.*

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Woven Fabrics

Crompton & Knowles LOOM WORKS

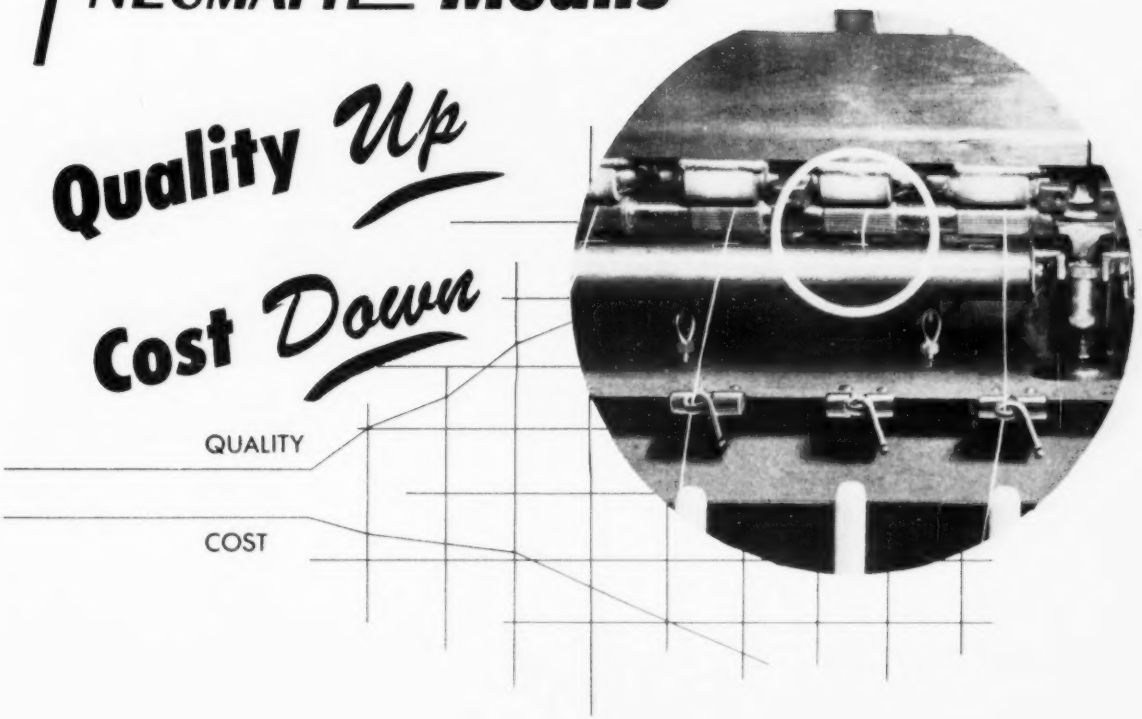
WORCESTER 1, MASSACHUSETTS, U. S. A.

Philadelphia, Pa. • Charlotte, N. C. • Allentown, Pa. • Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

PNEUMAFIL Means

Quality Up

Cost Down



Pneumafil* reduces slubs, gouts, and end piecings . . and eliminates spinning doublings. This in turn improves production in winding, warping, slashing, and weaving. Pneumafil* materially reduces seconds in finished goods.

A mill spinning combed yarn reports elimination of 90% of slubs caused by flying lint. A South Carolina mill group spinning 30's reports 40% reties on spoolers and a reduction of 40 ends down per thousand spindle hours. A mill spinning blends says "seconds decreased to an all-time low,". . . another mill says "improved quality of goods *alone* will pay for Pneumafil*."

Pneumafil* cuts costs. You get more pounds of yarn from raw stock, more yarn production per frame per hour, and more production per man hour.

Pneumafil* is the best investment you can make.

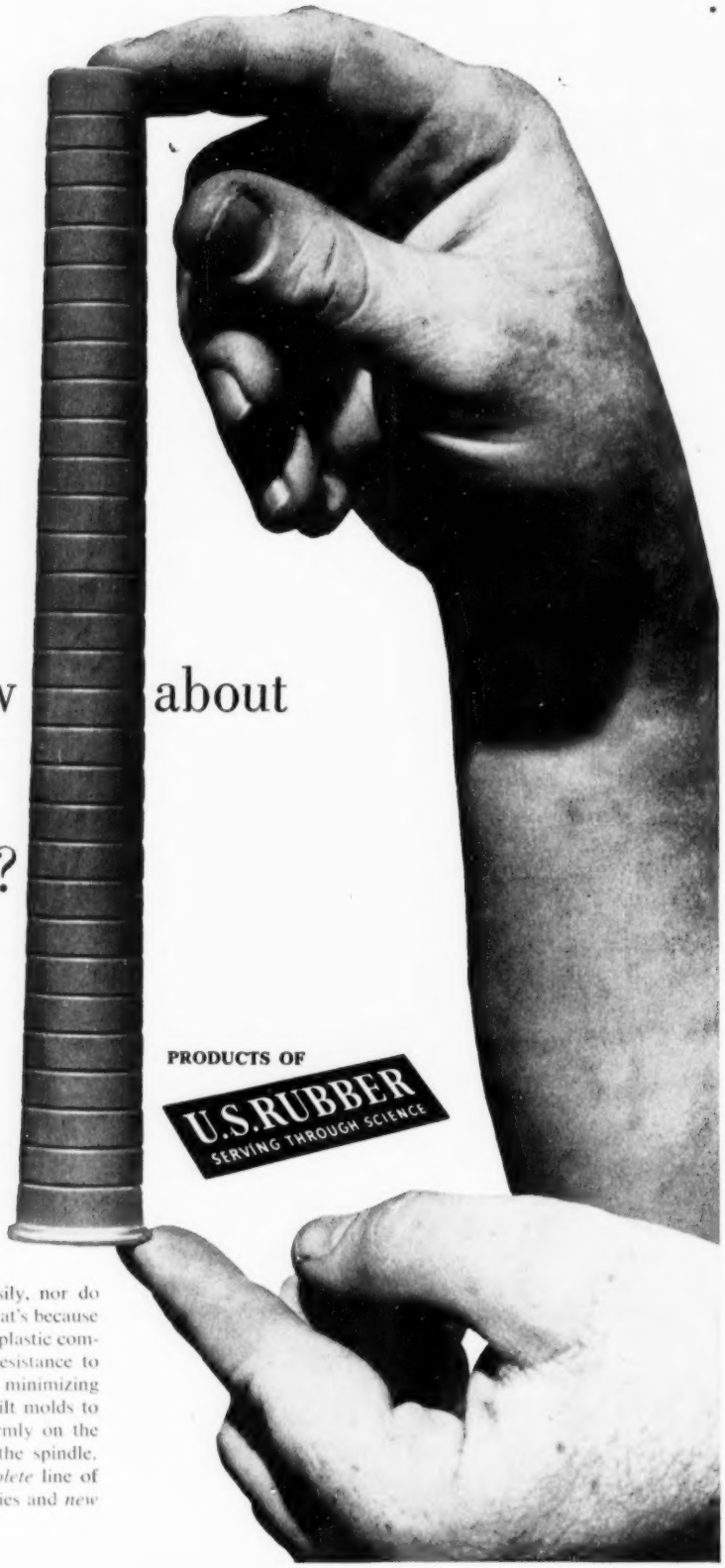
. . . for All Types of Spinning

PNEUMAFIL

CORPORATION • **2516 Wilkinson Blvd., Charlotte, N. C.**

Sales Offices: Boston—Atlanta

*Trade Mark



What's new about U. S. Rubber's warp tubes?

First, they do not crush easily, nor do they chip, splinter or roughen around the ends. That's because they are made of Uscolite, the sensational rubber-plastic compound. Uscolite warp tubes provide maximum resistance to abuse in a thin-walled tube. They hold yarn well, minimizing stuffing. Because they are molded in precision-built molds to close tolerances, Uscolite warp tubes seat uniformly on the spindles. There is never any working down on the spindle.

United States Rubber Company makes a *complete* line of textile mill specialties, incorporating *new* economies and *new* highs in product quality. Write to address below.

UNITED STATES RUBBER COMPANY

MECHANICAL GOODS DIVISION · ROCKEFELLER CENTER, NEW YORK 20, N. Y.

TEXTILE BANKING COMPANY

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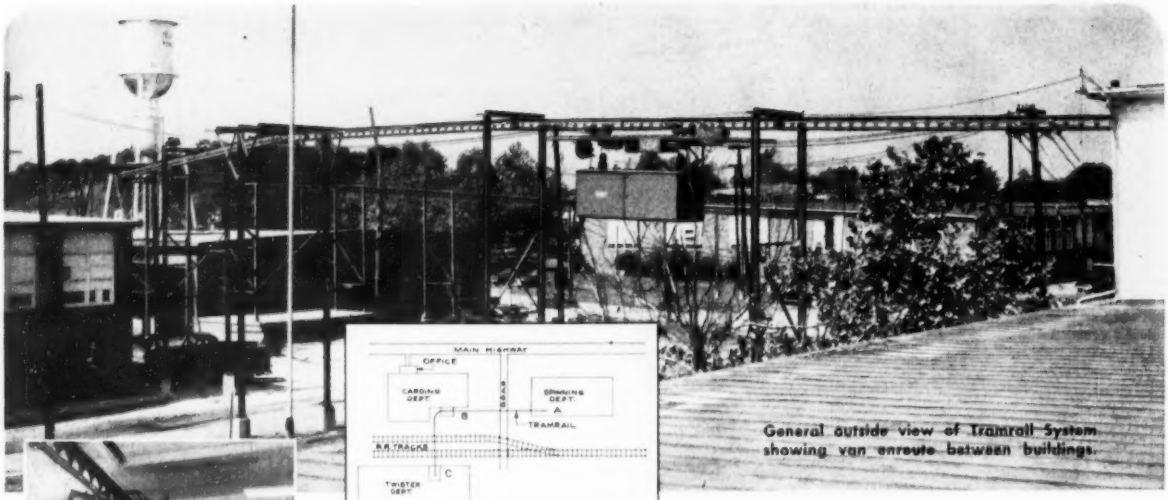
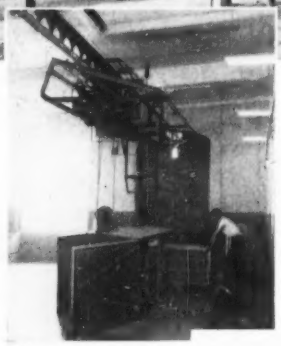
Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

55 MADISON AVENUE • NEW YORK

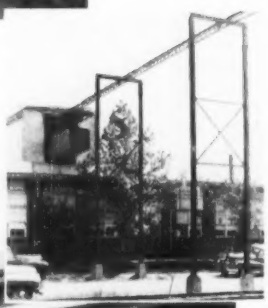


General outside view of Tramrail System showing van enroute between buildings.

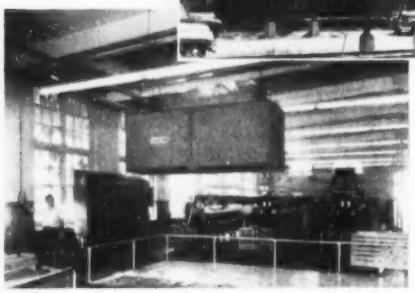


Integrates Three Separate Mills *Into One Efficient Plant* With Automatic Handling System

Loading four truck loads of spools and bobbins into van in Spinning Department.



Van entering penthouse on roof of Twister Department.



Starting load on way by depressing wall button.

In South Gastonia, N. C., Textiles, Inc. took over three mills, now known as Pinkney Mills, which are separated by a street and a railroad and which had been operated in the past as wholly separate mills. To integrate the operations, it installed a Cleveland Tramrail automatic dispatch system to carry materials between the buildings. This made it possible to concentrate on carding work in one building, spinning in another, and twisting in the third. Roving is dispatched from the Carding Department to the Spinning Department, and bobbins, spools and cheeses of yarn made in the Spinning Department are dispatched to the Twisting Department over the Tramrail system.

The handling work requires no extra help because it can be done quickly by people in the three buildings along with their regular work. All that is necessary is to push trucks in and out of the Tramrail van, close the van doors and press a button which starts the unit on its way.

Rain or shine, the system works without complaint. It connects with floors at different elevations and travels up and down grades over street and railroad. When the van reaches its destination, it lowers at once and stops automatically.

Management advises that the savings effected by use of the automatic dispatch system will pay for the equipment within a short period.

GET THIS BOOK!
BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
2877 East 287th Street, Wickliffe, Ohio

CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

YOU'LL FIND THE ANSWERS IN THIS FREE BOOKLET!

What advantages do self-emulsifiable wool oils offer you?

Why can Proxol-treated wools be carded immediately after picking?

How necessary is it to have control of static, particularly on the newer fibers?

How important is it to use low shrinkage wool oils?

What is the relationship between yarn strength and the amount of oil on the stock?

Why does Proxol increase yarn strength?

How important is tape life?

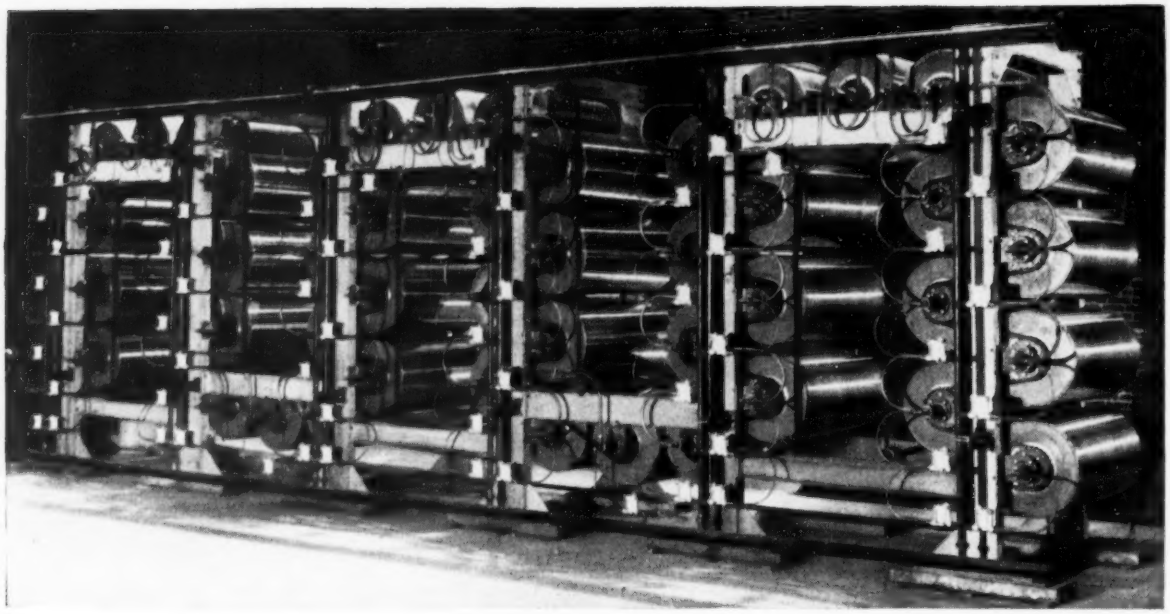
What are the important characteristics of wool oils in respect to finishing?

Proxol and Proxol T — the oils that smooth out your processing wrinkles

Yes, you'll find the answers to these and many other questions in "The Influence of Wool Oils in Producing Quality Wool Yarns and Fabrics," a 16-page booklet just published by our Textile Research Department. Ask your Procter & Gamble salesman for free copy or drop a postcard to:

Procter & Gamble

Textile Finishes Sales Dept.
P. O. Box 599, Cincinnati 1, Ohio



- Stainless Steel Dry Cans
- Slasher Cylinders
- Size Kettles
- Dye Tanks
- Rolls — All Types and Sizes
- Pre-Dryers
- Lint and Dust Collecting Systems For Spoolers and Warpers
- Slasher Hoods (Stainless or Copper)
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- Special Machines Custom Built

A.S.M.E. Code Construction

The Textile Shops

SPARTANBURG, SOUTH CAROLINA

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Designers & Manufacturers of Textile Metal Products

Now CUTLER-HAMMER *proudly presents the spectacular new ★★★ motor control*

Entirely new in concept and design. Wide-open accessibility. Remarkably improved performance. Vastly increased operating life.

This is important news for the men of industry. It marks a new day of improved electric motor performance. A new day of more accurate and more dependable motor protection. A new day of simpler, easier, faster motor control installation. This is the quick story of the spectacular new Cutler-Hammer [redacted] Motor Control. But thousands of words could not tell this story in its important details.

Cutler-Hammer [redacted] Motor Control can be known *only* by its performance. Field-tested for more than two years in hundreds of the most trying motor control assignments, its first users have said time and again that there has never been anything like it before. And these users were *looking* for faults. You need not be moved by their enthusiasm. But you cannot ignore their factual reports. Try it. Test it. Compare it. Prove it. Your nearby Authorized Cutler-Hammer Distributor is ready to serve you. Order from him today.
CUTLER-HAMMER, Inc., Milwaukee 1, Wisconsin.

☆ ☆ ☆

★ *installs easier*
★ *works better*
★ *lasts longer*

CUTLER-HAMMER
MOTOR CONTROL
C-H

SEE NEXT PAGE ➡

CUTLER-HAMMER ★★★ MOTOR CONTROL

The 3 Stars stand for 3 New Standards

☆ 1...An entirely new standard of easier, faster, lower-cost motor control installation. Any electrician can prove it.

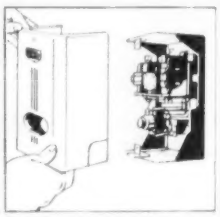
☆ 2...An entirely new standard of dependable motor control performance; reliable uniform response and more accurate overload protection. Any use will confirm it.

☆ 3...An entirely new standard of trouble-free long life; surely the finest starters both electrically and mechanically you have ever known. Any comparison shows it.

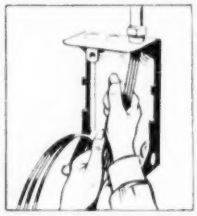
Installs easier...

Factory records everywhere today show the cost of installing motor control is usually much greater than the amount spent to buy the control equipment, often two or three times as much. Here you see why this new, better motor control actually costs less.

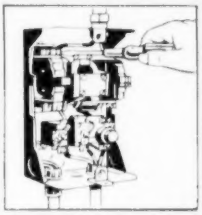
Just loosen two screws and off comes wrap-around cover. Screws stay in cover, do not fall on floor. Just loosen three screws and out comes the entire mechanism on unit plate.



Making conduit connections and pulling wires is a cinch; no starter mechanism in the way. No damaged starter parts or skinned knuckles. Wide-open accessibility, no side walls.

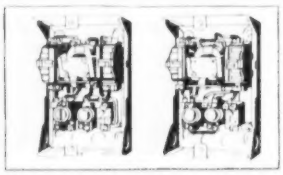


Easy straight-through wiring. All line terminals are at top, all load terminals at bottom. All terminals visible from front, all with solderless pressure connectors. Plenty of wiring room.

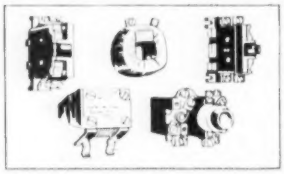


Works better...

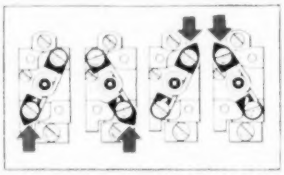
Better performance; dependably uniform operation, trouble-saving and cost-cutting more accurate overload protection. These are more than mere claims in this new Cutler-Hammer control. Field-tested over two years. Compared with every make of control by actual users...to have most say, "Better than anything we have ever used."



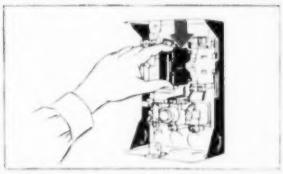
3-Coil Overload Protection. Another Cutler-Hammer "first," complete protection against single phasing as an optional feature in standard starter construction in standard enclosure.



5-Unit Construction. Just five units... magnet coil, armature, two contact blocks, and overload relay...and any unit can be removed from *front* without disturbing any other.



4-Position Overload Coils. Famous C-H Eutectic Relay now adjustable so motors can work harder *safely* without nuisance tripping. Each coil offers range of 4 ratings, selected by positioning.



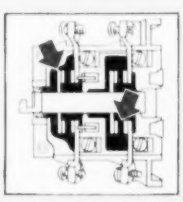
Electrical Interlocks. Interlock blocks easily added to provide up to 4 extra control circuits; normally open, normally closed, or both.

Lasts longer...

Many users will ask, "Why longer life? We have never had a Cutler-Hammer starter wear out." But there are two reasons for even longer life. First, it brings better performance to those "killer" jobs where industry expects Cutler-Hammer engineering leadership to prevail. Second, and most important, it decreases the *rate* of wear to the point where maintenance care and cost are virtually *eliminated* on most installations.

Armature pivoted on a rolling bearing for smooth, quiet operation. No rubbing, no sticking, no slamming. New light-weight moving parts. Less weight, less bounce; less bounce, less arcing.

New pressure-quench arc chambers. Heat of any arc rapidly expands confined air; increased pressure snuffs arc. Contacts are *vertical* dust-safe design; twin-break contacts further minimize arcing.



Cutler-Hammer, Inc.—Milwaukee 1, Wisconsin

CUTLER-HAMMER ★★★ MOTOR CONTROL

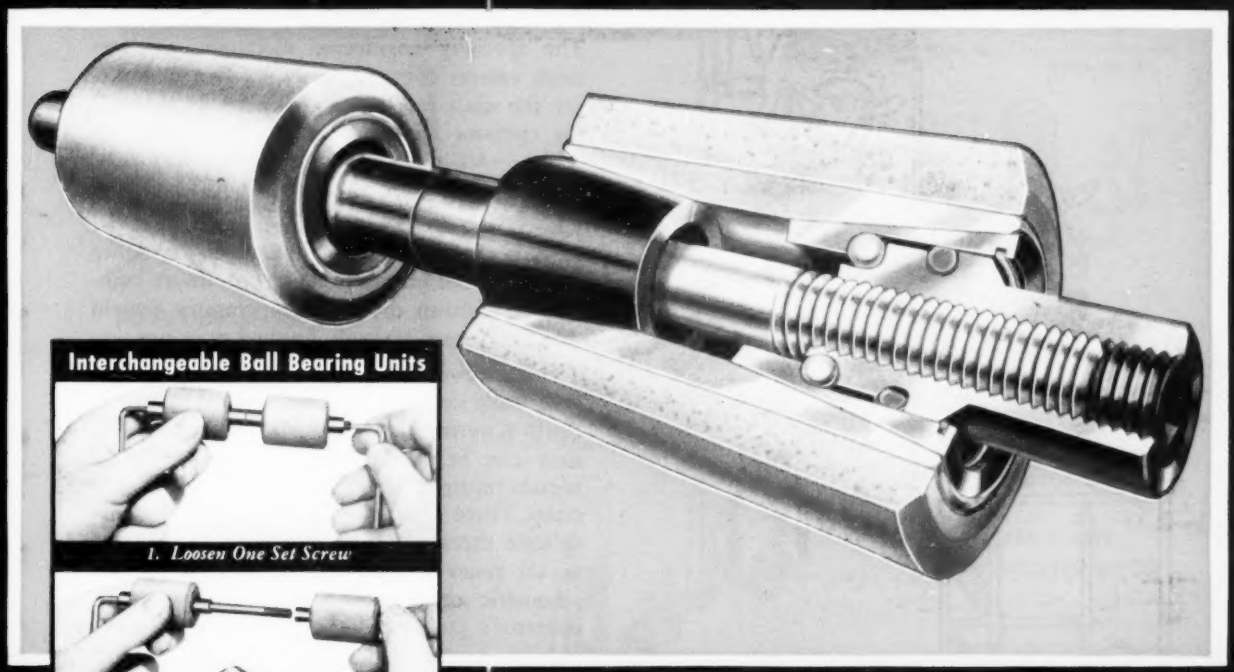
NOELTING

Faultless

BALL BEARING TOP ROLLS

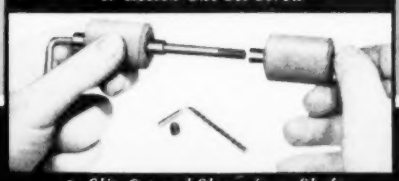
PAT. PENDING

FOR SPINNING AND ROVING FRAMES



Interchangeable Ball Bearing Units

1. Loosen One Set Screw



2. Slip Cot and Sleeve from Shaft

3. Interchangeable Ball Bearing Units

4. Simple, Foolproof Construction —for Quick Economical Servicing

- INTERCHANGEABLE BALL BEARING UNITS
- SEALED LUBRICATION OF EXCLUSIVE DESIGN, PAT. PEND.
- QUICK, EASY LOW-COST SERVICING
- UNIFORM PRECISION QUALITY

Write for Bulletin No. 9255

FAULTLESS CASTER CORPORATION

Manufacturers for over sixty years

TEXTILE EQUIPMENT DIVISION

EVANSVILLE 7, INDIANA

Distributed by: Yeomans' Textile Services, P. O. Box 1661, Spartanburg, S. C., in North Carolina, South Carolina and Virginia, and by Unity Supply Co., P. O. Box 5102, Columbus, Ga., in Alabama and Georgia.

Let's talk

HOSIERY PROFITS

Are you operating too near the "red" for profit comfort? Take the guesswork out of hosiery finishing with a Turbo AD-48 . . . get 120 to 130 dozen pairs of perfectly finished, static-free stockings per 8-hour day. Preboard with steam — finish board with heated air — both with the same machine.

In preboarding, the AD-48 gives you unvarying quality production. Timing is automatic. The specially engineered electronic arrangement assures constant, desired steam pressure. Set the dials for the desired time cycle — all the operator has to do is dress and strip the forms — all other operations are automatic. Only *one* operator is needed.

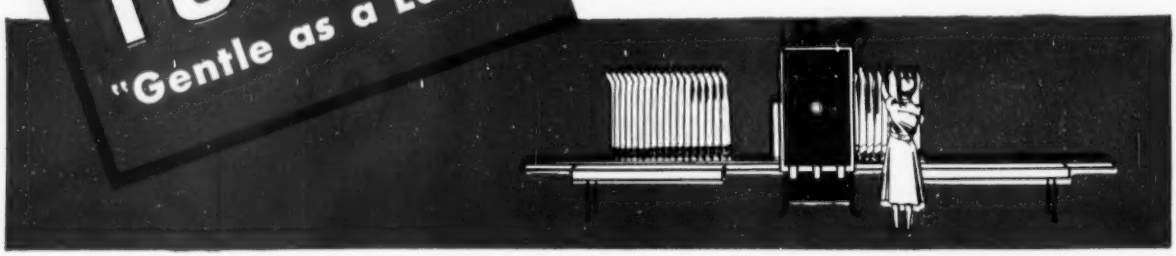
Finish boarding, with fan circulated, heated air takes place in the same chamber. More air is directed on welt and toe to insure completely uniform drying. Temperatures remain steady to insure perfectly finished stockings.

There are two groups of 24 forms mounted on collapsible conveyors. The solid leg forms are easily removed to change size or shape. Two sizes can be run at the same time. Forms remain upright at all times, fabric will not creep. There is no banging, no jolting to injure delicate threads. Action is "gentle as a lamb" at all times — quiet too! Operation can be automatic or semi-automatic, geared to the operator's production rhythm.

Seeing's believing — plan to see the Turbo AD-48 in operation soon. Or let us send you the complete story on quality preboarding and finish boarding with Turbo Machines.

TURBO MACHINE COMPANY
Lansdale, Pennsylvania, U.S.A.
Southern Rep.: F. W. Warrington Co., Charlotte, N. C.

TURBO
"Gentle as a Lamb"



Five Du Pont Continuous Bleaching Systems that can help lower costs

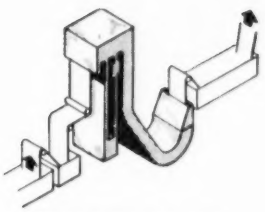
CAPACITIES FROM 500 TO 7,500 LBS./HR.

Whether your mill is large or small, there's a Du Pont system to meet your space and production requirements.

Each system assures lower over-all cost, flexibility, and ease of operation and control. Leading mills everywhere have modernized with continuous bleaching. So join the trend to better bleaching . . . investigate Du Pont Continuous Bleaching Systems. The coupon below will bring you full details. E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Wilmington 98, Delaware.

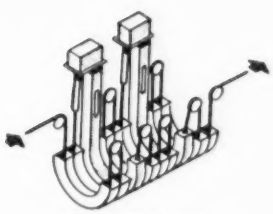
NOTE: Du Pont does not build or sell the equipment illustrated. Du Pont Systems are available from the following equipment manufacturers:

H. W. Butterworth & Sons, Philadelphia, Pa.
Cook—P & N Machine Co., Boston, Mass.
Greenville Steel & Foundry Co., Greenville, S. C.
Rodney Hunt Machine Co., Orange, Mass.
Weisner-Rapp, Inc., Buffalo, N. Y.
Proctor & Schwartz, Inc., Philadelphia, Pa.



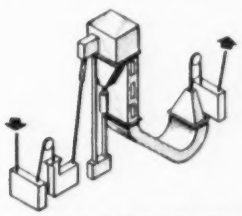
500 TO 1,000 LBS./HR.

Compact single-stage unit for the smaller plant or for specialty bleaching in larger plant. Handles cloth continuously at average rate 75 yards per minute.



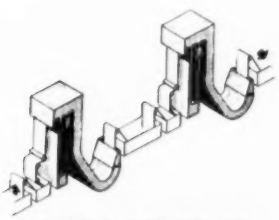
750 TO 1,500 LBS./HR.

Two-stage unit produces maximum yardage at lowest possible cost. One-man operation means savings in labor. Goods in the 3-7 yds./lb. class can be handled at 100 yds./min. speed.



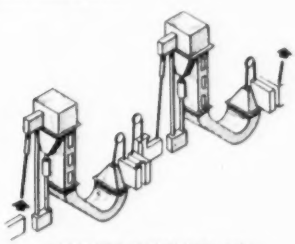
1,500 TO 3,000 LBS./HR.

Excellent arrangement for production requirements of 200,000 to 400,000 yds. weekly. Handles light and heavy constructions. Available in open-width design for goods that cannot be rope-processed.



2,000 TO 6,000 LBS./HR.

Flexible arrangement permits installation as single or two stage system. Requires only 325 to 500 sq. ft. floor space. Handles 75 to 125 yds./min. Matched units can be added to increase capacity.



3,000 TO 7,500 LBS./HR.

For large-scale bleaching of print cloths, terry toweling, colored yarn, shirting, etc. Can be designed to process up to 300 yds./min. Open-width design also available.

SEND FOR FREE ILLUSTRATED BOOK

about Continuous Bleaching. It describes typical installations in leading mills and all phases of the process. Just fill out and mail the coupon below for your copy.

DU PONT CONTINUOUS PEROXIDE BLEACHING

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department, Wilmington 98, Del.

Please send me more information about Du Pont Continuous Peroxide Bleaching Systems—including your free book.

*Name*_____ *Position*_____

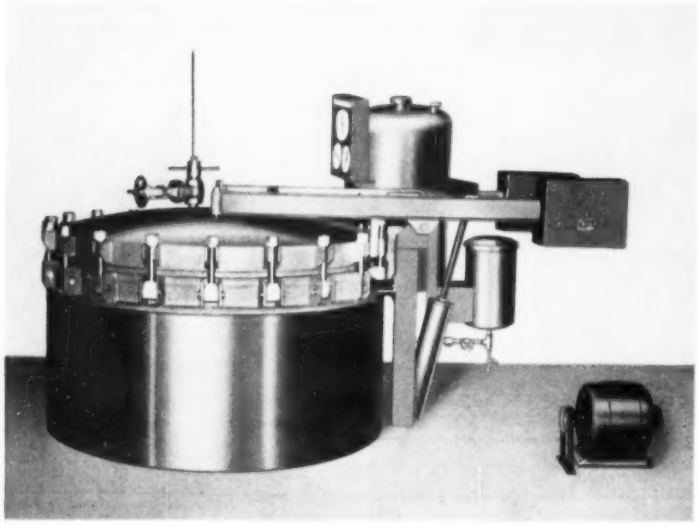
*Firm*_____

*Address*_____

*City*_____ *State*_____

The Fleet Line for Synthetics:

HY-TEMPERATURE STOCK and TOP DYE KETTLE



It's New!

It's Different!!

It's Better!!!

500# Stock and/or Top Dye Kettle. Built under ASME Code, has stamp of approval of Hartford S.B.I.&I. Co.

CHECK THESE FEATURES

1. Dyeing Cycle Considerably Reduced
2. Economy of Dyestuffs, Chemicals and Time — High Exhaustion of Bath
3. Effective Insulation
4. Pressurized Shading Tank
5. Dye Boil Up Tank
6. Ejector or Pump Feed for Dye
7. Heat Exchanger — No Open Coil
8. Constant Liquor Volume
9. Counter-Balanced Air-Operated Cover
10. Sampling Without Loss of Temperature or Pressure
11. Pressurized Expansion Tank

NOTE: This Hy-Temperature Stock and/or Top Dye Kettle is entirely new, engineered from start to finish to solve problems of dyeing synthetics. It is *not* merely a re-design or adaptation of any existing model!

RIGGS AND LOMBARD INC.

FOOT OF SUFFOLK STREET, LOWELL, MASS.

Agents: Paul A. Merriam, 1491 Broad St., Prov., R. I. · Charles H. Dunker, 1236 So. Maple Ave., Los Angeles 15, Calif. Albert R. Breen, 80 E. Jackson Blvd., Chicago 4, Ill. · F. W. Warrington Co., 611 Johnston Bldg., Charlotte, N. C.

This is a wrinkle

A wrinkle has its "sometimes." Sometimes, on a monkey's face, for instance, it has a lot of charm. Sometimes, when it spoils the line of a skirt, the fit of a fabric, its nuisance value is considerable.

That's why Du Pont is proud to have contributed to the retirement of the wrinkle—through the scientific development of modern-living fibers. Nylon, "Orlon", "Dacron"... each in its way contributes to textiles the strength and the value of wrinkle resistance. These modern-living fibers offer customers what they want today—wearable, packable clothes, worry-free, wrinkle-free pleats, men's wear, women's wear, and home furnishings of extraordinarily care-free wrinkle resistance.

And wrinkle control is only one of the many better values for better living that you can count on when you create fabrics made from Du Pont's modern-living fibers.

DU PONT'S MODERN-LIVING FIBERS

NYLON | RAYON | ACETATE | ORLON® ACRYLIC FIBER | DACRON® POLYESTER FIBER

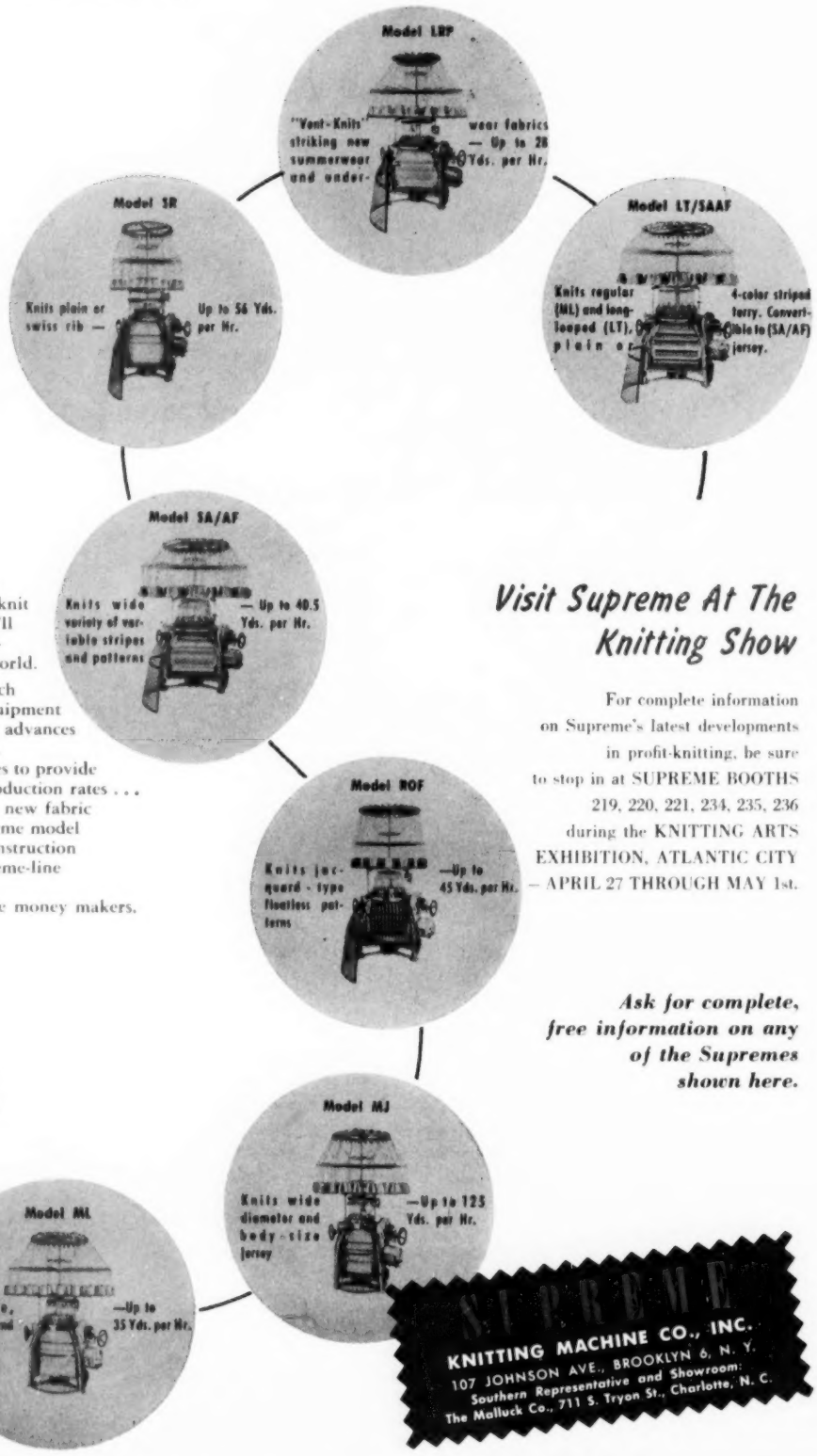
DU PONT

Supreme-line

your mill for greater knitting profit

Supreme's prime objective is building machines that will knit profits for their owners. You'll find the evidence in Supreme-equipped mills all over the world.

Supreme's engineering research is devoted to developing equipment which incorporates the latest advances in modern scientific knitting. This design progress continues to provide knitters with outstanding production rates . . . multi-machine versatility . . . new fabric possibilities. Yet, every Supreme model contains basic mill-proven construction features that make the Supreme-line a family of hard-working, long-lasting, low-maintenance money makers.


Model LRP
"Vent-Knits" striking new summerwear and under-
wear fabrics — Up to 28 Yds. per Hr.
Model 1R
Knits plain or swiss rib —
Up to 56 Yds. per Hr.
Model LT/SAAF
Knits regular (ML) and long-looped (LT), plain or
4-color striped terry. Convertible to (SA/AF) jersey.
Model SA/AF
Knits wide variety of variable stripes and patterns
— Up to 40.5 Yds. per Hr.
Model ROF
Knits jacquard-type fleeceless patterns
—Up to 45 Yds. per Hr.
Model IC
Knits fleece coatings —
Up to 30 Yds. per Hr.
Model MJ
Knits wide diameter and body-size jersey
—Up to 125 Yds. per Hr.
Model ML
Knits pile, loop terry and plush
—Up to 35 Yds. per Hr.

Visit Supreme At The Knitting Show

For complete information on Supreme's latest developments in profit-knitting, be sure to stop in at SUPREME BOOTHS 219, 220, 221, 234, 235, 236 during the KNITTING ARTS EXHIBITION, ATLANTIC CITY — APRIL 27 THROUGH MAY 1st.

Ask for complete, free information on any of the Supremes shown here.

SUPREME

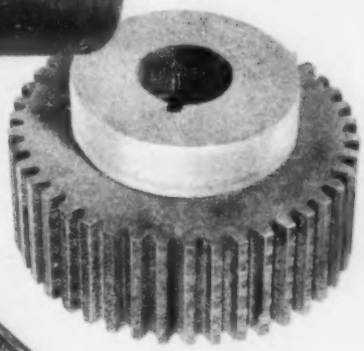
KNITTING MACHINE CO., INC.
107 JOHNSON AVE., BROOKLYN 6, N. Y.
Southern Representative and Showroom:
The Malluck Co., 711 S. Tryon St., Charlotte, N. C.

SK-158

here's why...

MORE and MORE mills are turning to micarta®...

LAP ROLLS



GEARS

SHUTTLES

SPIN BOBBINS

because of these qualities...

Saves Weight, weighs half as much as aluminum. **Resists Compression,** pound for pound greater than steel. **Resists Impact,** absorbs and withstands severe shock. **Withstands Vibration,** cushions repeated shock without effect. **Insulates** like mica but greater flexibility. **Resists Corrosion,** not affected by acids, oils, fumes. **Resists Heat and Cold** from −112° F to 212° F. **Resists Moisture,** in fact, water is its best lubricant. **Wears Slowly, Evenly,** in many cases more slowly than metal. **Reduces Noise,** absorbs vibrations, deadens noise. **Fabricates Easily,** machined or punched with ordinary tools.

because of these flexibilities...

Laminated MICARTA includes standard structural shapes: plates, sheets, angles, channels, rods, tubes and zees. Occasionally this class includes simple molded shapes. **Molded MICARTA** is the choice for complicated shapes, large production quantities of either simple or complicated shapes, or for certain properties better obtainable in form molding.

because micarta is basic...

MICARTA is a tough and resilient basic material that welcomes comparison with other basic materials. This versatile plastic outlasts wood and metal in many punishing applications. Investigate MICARTA and you'll find it the economical solution to tough production problems.

for more information on how MICARTA can help solve your production problems, and give you advantages no metal can give you, please fill out the coupon below. A MICARTA representative will then call on you personally.

mail it today!

YOU CAN BE SURE...IF IT'S

Westinghouse

micarta

Westinghouse Electric Corporation
MICARTA Division, Trafford, Pa.
Attention: L. A. Pedley

Sir: (Please Check One)

☐ Please have your representative call

☐ Please send me the complete facts on MICARTA

Name _____ Company _____

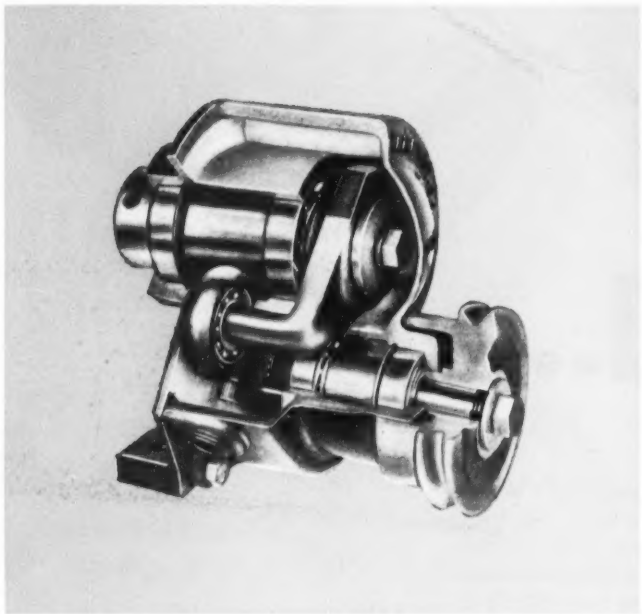
Address _____

City _____ Zone _____ State _____

J-06501-B

install this combination...

IT PAYS FOR ITSELF



Ball Bearing COMB BOX

Southern States ball bearing comb boxes require no attention. They are lubricated and sealed for life. Running smoothly and cool, they drive the comb with an even stroke without chatter or vibration. Hot, leaky, vibrating comb boxes are no longer a necessary evil.

These units are furnished complete with an adapter base to mount them on the make of card you specify. Each adapter base is double tapped to insure quick, easy mounting of the box on either right or left hand cards.

Ball Bearing OFF-END STAND

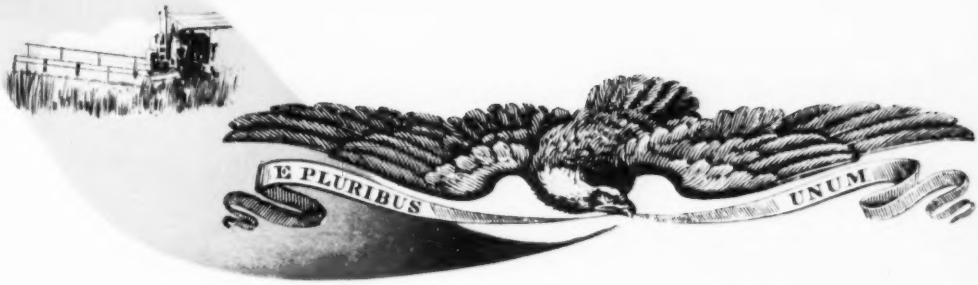
This is the optional companion piece of the Southern States ball bearing comb box. A completely sealed bearing unit, this stand—when used in combination with our ball bearing comb box—eliminates the possibility of oil damage at the front of the card. These units are available for all current makes of cards and may be mounted either right or left hand.

Southern States SS **Equipment Corp.**
HAMPTON GEORGIA

Representatives - Mechanical Division

William A. Knapp	Matthews Equipment Co.	John C. Walters	C. H. Kennington	Frank Birchfield	Textile Parts & Machine Co.	F. C. Todd, Inc.
Atlanta, Georgia	Providence, R. I.	Hampton, Georgia	Charlotte, N. C.	Alex. City, Ala.	Gastonia, N. C.	Gastonia, N. C.

Largest Manufacturer of Cast-Tooth and Cut-Tooth Gears in the South

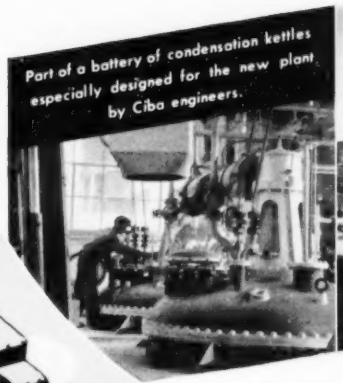


The fabric of AMERICA

Woven strong in face of repeated challenges to our nation's spiritual and material resources, the heritage of our institutions and national unity remains the rallying point for the hopes of the free peoples of the world.

Because the responsibility of such leadership must be met with more than words, technological advancement and expansion of production capacities of the nation's industries must continue unabated to serve the needs of domestic and world markets, and our national security.

To this end, Ciba's newest plant, the most modern of its kind for the production of vat colors of superior light-and-wash-fast qualities, will be dedicated. Soon to be in full-scale operation, "Ciba Toms River" will serve an important need, and take its place with other long-established Ciba enterprises serving both industry and public health in peace and war.



Part of a battery of condensation kettles especially designed for the new plant by Ciba engineers.

Panorama of 35 acres of buildings, access roads, and effluent treatment facilities that comprise Ciba Toms River Vat Dyestuffs Plant.

CIBA

builds to serve

PROGRESS REPORT #4 in a series to tell the story of Ciba's expanding facilities for service.

NEW!

A CIBA RESEARCH EXCLUSIVE!

A versatile textile Auxiliary

NEOVADINE* A

(High Conc.)

Neovadine a High Conc. contributes these and other important advantages to dyeing and printing procedures.

ON WOOL

EXERTS unusual level dyeing action.

PRODUCES uniform dyeings of mixed wool qualities.

PREVENTS tippy dyeing.

PROVIDES partial stripping and controlled reduction of heavy shades *without fibre damage.*

ON COTTON AND RAYON

PREVENTS the bleeding of Vat, Direct and Acid Color application prints during washing.

PROTECTS the purity of the white discharge by preventing the bleeding during washing of Naphthol, Diazo, Coprantine, Chlorantine and Direct dyed ground shades.

IMPROVES the crocking fastness of Naphthol dyeings and prints.

For complete details on applications and recommended procedures, write or call . . .

CIBA

*Reg. U. S. Pat. Off.

CIBA COMPANY INC.,
627 Greenwich Street, New York 14, N. Y.
Boston Chicago Charlotte
Providence San Francisco Philadelphia

IT'S NEW

Dynamic Braking with Electronic Guider Control †

No brakes to reline or burn out

Perfect tenter-pinning control

Add years to your motor life

Yes, all these outstanding results are exclusively obtainable with McCreary Automatic Pinning and Overfeed—equipped with the new G-E Electronic Guider. The electronic guider rectifies the A-C current to D-C in 3/1,000,000 of a second, thereby putting the motors into instantaneous operation and permitting dynamic braking.

The dynamic braking action is accomplished by the use of resistors, thus entirely eliminating mechanical brakes and heating of the motors, greatly increasing motor life, and giving an accuracy to tenter-pinning hitherto unobtainable

For further information, write at once . . . . . .

†Patents applied for

McCreary MACHINE WORKS, INC.
COHOES, NEW YORK

MANUFACTURERS OF TEXTILE FINISHING MACHINES SINCE 1874

This company makes a finer, perfectly uniform and stable size with Gaulin Homogenizers. Result is better control of pickup and penetration . . . with improved fiber lay.

More than 1500 GALLONS

of GAULIN-HOMOGENIZED Size Every Hour

This World-Famous Southern Cotton Mill uses four 400 GPH Gaulin Homogenizers to make a *uniformly better size, more economically.* Just like hundreds of other mills, they switched to Gaulin-Homogenized size because it makes a *stronger, more elastic* yarn — that sheds less and breaks less at the loom and slasher.

Many mills report weaving efficiencies up as much as 1 to 3%.

All report that savings in starch, steam, cooking time or reduced labor alone pay for the installation of a Gaulin Homogenizer.

Present installations include machines for cotton, worsted and rayon sizes.

If higher weaving efficiencies and lower size preparation costs interest you, write for the full facts on Gaulin guaranteed performance, today.

Look to GAULIN HOMOGENIZERS for—

- More Uniform Size
- Improved Viscosity Control
- Reduced Preparation and Starch Costs
- More Efficient Weaving
- Proved Dependability
- Unit Machine Capacities up to 2000 GPH

MANTON GAULIN Manufacturing Company, Inc.

68 GARDEN STREET, EVERETT 49, MASSACHUSETTS

World's Largest Manufacturer of Homogenizers, Triplex Stainless Steel High Pressure Pumps, and Colloid Mills

Gaulin TRADE MARK

Even longer life!

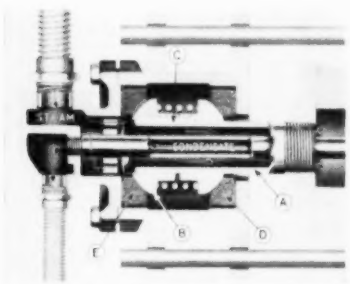
Even less maintenance!

TYPE "L" JOHNSON ROTARY PRESSURE JOINTS

In the textile industry, the Johnson Joint has long been the overwhelming choice as the best way to introduce steam or liquid into rotating rolls and drums. Now, in ever increasing numbers, mill men and machinery manufacturers are finding that the type "L," in the great majority of cases, is the best method of installing the Johnson Joint for longer life and less maintenance.

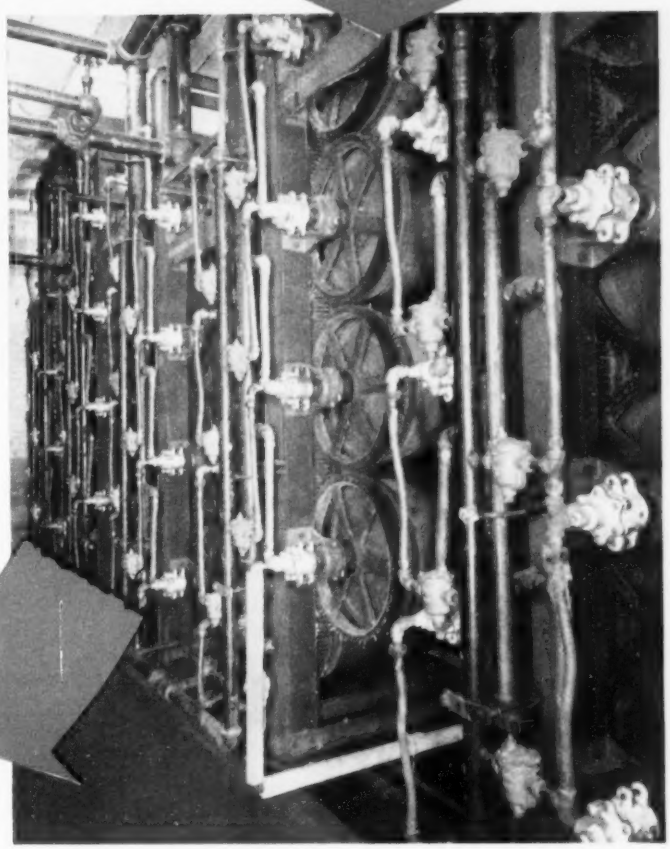
The Type "L" has lugs added to the body, so that simple rods can be used to support the weight of the joint and the connecting piping. This removes all excess weight from the seal rings, leaving them only their primary task of maintaining an effective seal. Better operating efficiency, and even more trouble-free service are direct resuts.

A typical installation of Type "L" Johnson Rotary Pressure Joints is shown in this photograph of dry cans in a well known textile mill. Find out how easily you too can switch over to the Type "L" Johnson Joint, and how quickly it will pay for itself out of savings in maintenance. Write today for complete information.



Packless, Self-Lubricating, Self-Adjusting, Self-Aligning

Nipple (a) is connected to roll. Collar (b) is keyed to nipple at (c), but fits loosely so pressure can fill entire housing. Pressure is sealing force, consequently self-adjusting. Seal ring (d) and bearing ring (e) are of special carbon-graphite; they eliminate all packing or need for lubrication. Note room for lateral movement of rotating assembly, spherical seating for angular movement.



Type L Johnson Rotary Pressure Joints installed on a set of dry cans in a well known large textile mill. This is typical example of installations of the Type "L" Johnson Joint found throughout the textile industry. Note the use of flexible hose on steam and condensate connections.

Products of The Johnson Corporation

815 Wood St., Three Rivers, Michigan

Rotary Pressure Joints • Compressed Air Separators and Aftercoolers
Direct Operated Solenoid Valves • "Instant" Steam Water Heaters

U. S. Textile Machine Company presents to Face Drive Twister customers

THE ANSWER TO BETTER YARN QUALITY WITHOUT REDUCING TWISTING SPEEDS!

attention:
FACE DRIVE TWISTER CUSTOMERS

Run at high spindle speeds and get even better quality yarn with new, precision balanced wind, bottle type supply spools from the new Vertical Spooler!

U.S. ACME

Now... NEW HIGHER SPOOLING SPEEDS

VERTICAL SPOOLER

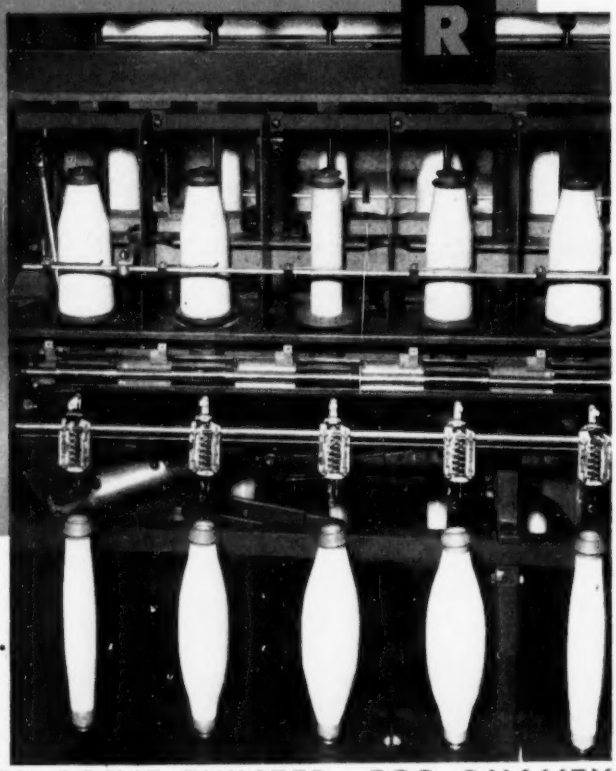
with PACKAGES THAT MINIMIZE BROKEN FILAMENTS without reducing twisting speeds!

NEW TYPE!
BOTTLE WIND SPOOLS

improve yarn quality by minimizing broken filaments in twisting operation

MORE SPINDLES IN LESS FLOOR SPACE

SPOOL, CLEAN & OIL *IN ONE HIGH SPEED OPERATION*

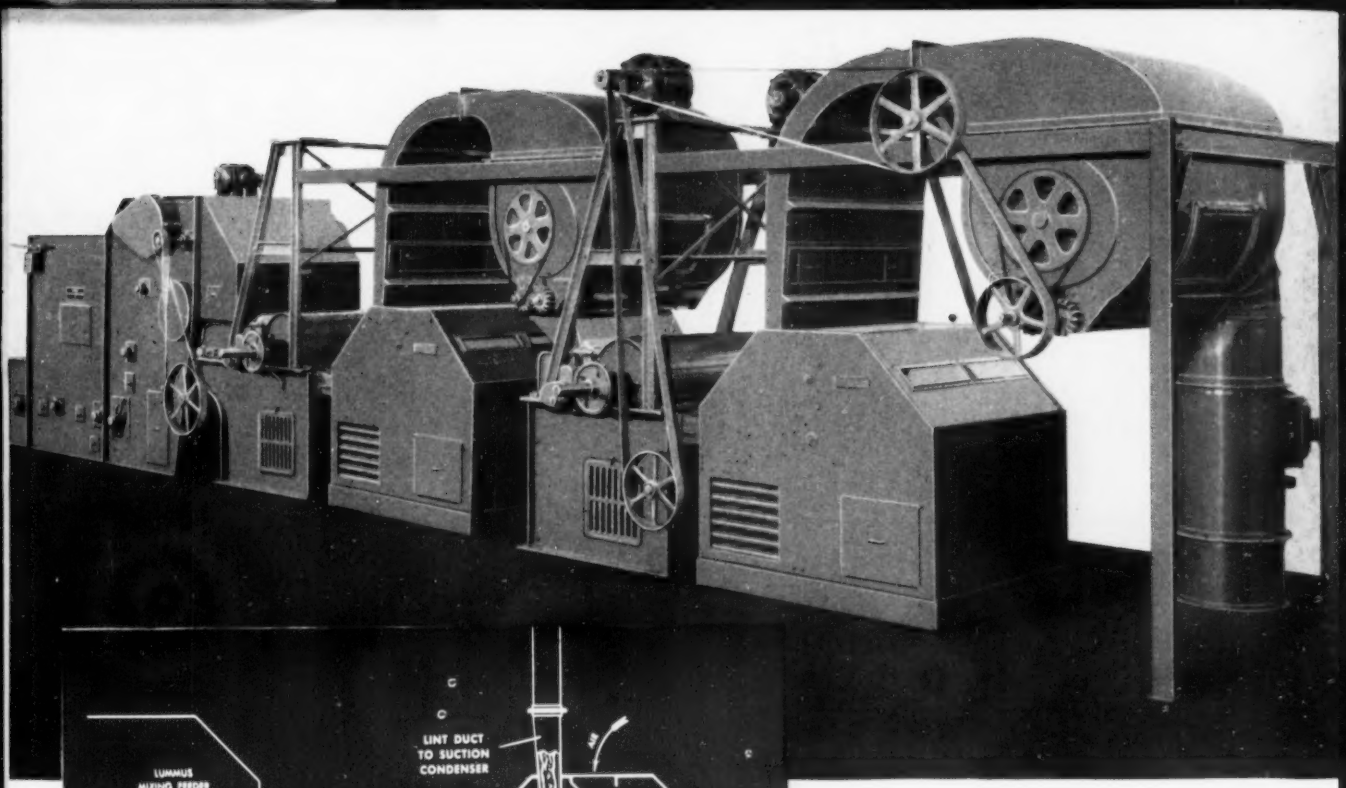


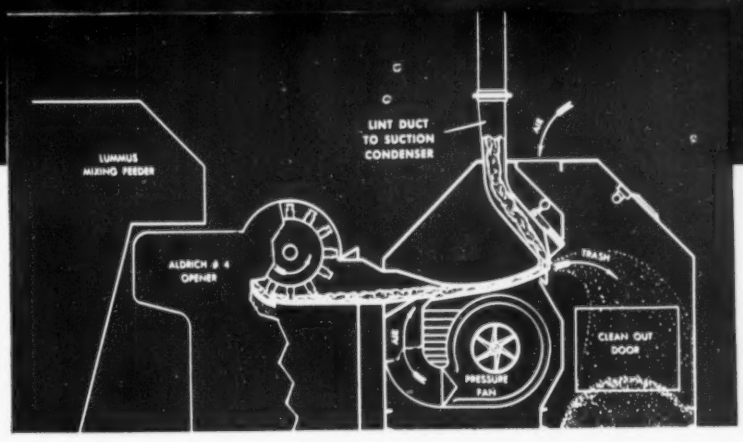
Let's talk over your spooling requirements . . . write, phone or wire for complete data.

U. S. TEXTILE MACHINE CO.
SCRANTON 8, PENNA.

SERVICE AT THE TIME OF PURCHASE ... SERVICE OVER THE YEARS!

VERTICAL SPOOLER PLUS FACE DRIVE TWISTER—FOR QUALITY!





Super-Jet takes out trash by air. No saws . . . only enough beating to open the cotton. No damage to fibre, or breaking up of trash. Lint delivered cleaned and thoroughly opened . . . with no curling, no stringing, no increase in nep-count.

WITHOUT LOSS OF SPINNABLE FIBRE TANDEM SUPER-JET MAKES COTTON CLEAN

Tandem Super-Jet cleaning system as shown here, not only does not take out good lint, but can be set to remove any desired type of trash. Super-Jet is now in operation in a long list of mills, whose cotton ranges from waste mix and good ordinary on up to strict middling. In these mills Super-Jet has proven itself as the first really new idea in lint cleaning in the last 75 years.

Super-Jet cannot damage fibre because it has no moving parts, and does its work with two air-currents. It eliminates the heavy cost in high-priced cotton of fibres damaged by cleaning, and good, spinnable lint thrown out with the motes.

Super-Jet takes out motes and neps; bark, shale, stems, grass and other loose trash without breaking them up into motey material or pepper trash. Used in Tandem with the opening equipment shown, the cleaning system turns out cotton ready for delivery direct to the pickers and so dust-free that you will notice that your card and spinning rooms are cleaner after installation of Tandem Super-Jet.

We have been given permission to invite you to visit mills with Super-Jet installations, running the same type of cotton you use...and will be glad to arrange such visits at your convenience.

ALDRICH-LUMMUS CLEANING SYSTEM

Made by LUMMUS COTTON GIN CO. Columbus, Ga. and ALDRICH MACHINE WORKS Greenwood, S. C.

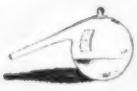
Sold and Installed by AldricH MachinE Greenwood WorkS South Carolina

FOR COTTONS

Houghto-Size sizing compounds . . . concentrated . . . provide high weave room efficiency. For slicker warps with excellent fiber lay, also use Houghto-Wax in the size kettle.

FOR WOOLENS

Sulfol 448, non-ionic stock lubricant for woolens and worsteds—minimizes static—is odorless, non-staining, non-corrosive. Also Lanolubric wool oils, well known for over half a century for their dependable performance.



FOR SYNTHETICS

Raylubric oils for softening, soaking and throwing rayon and synthetic fibers.

You can control UNIFORMITY when you use Houghton Textile Processing Products

For scouring and wetting applications, remember these Houghton surface active agents:

CERFAK . . . the trade name to specify when *detergency* is the chief factor you want.

SURFAX . . . selected whenever exceptionally good *wetting* and *re-wetting* power is needed.

Ask your Houghton Man for full information or write E. F. Houghton & Co., Philadelphia 33, Pa.

. . . products of

E. F. HOUGHTON & CO.

PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO

Ready to give you on-the-job service . . .

CLEANER *LINT-FREE* AIR
at lowest maintenance costs!

AUTOMATIC WIPER BLADE
DOOR FOR REMOVAL OF LINT
THE SCREEN PICKS UP LINT FROM THE AIR
WIPER STRIPS LINT FROM THE SCREEN
AND DEPOSITS IT IN THE RECEPTACLE
THEN RETURNS FOR NEXT OPERATING CYCLE

Bahnson "*Type S*" Air Cleaner

Handling up to 30,000 cubic feet of air per minute—more with multiple units!—the Bahnson Type S Air Cleaner fits over any recirculated air intake... traps lint with 32-mesh screen and automatically cleans the screen at adjustable intervals. Easily installed and self-contained, this unit cuts your maintenance man-hours to a bare minimum. No filter media to be replaced... no filter cells to be cleaned... salvages all lint. *Less cost from every angle... but cleaner, lint-free air for more efficient mill operation!*

Send coupon for full information and complete technical data.

MAIL TODAY!

Simply fill in coupon, attach to your company letterhead and mail to Bahnson Company, Winston-Salem, N. C.

NAME_____

POSITION_____

(Type S)

Bahnson Company
ENGINEERS AND MANUFACTURERS
AIR CONDITIONING HUMIDITY CONTROL
WINSTON-SALEM, N. C.

for SHEER fire-fighting POWER

There's nothing like a Kidde Dry Chemical extinguisher for smothering fire fast. It's the only shielded nozzle dry chemical portable. That means you get the double advantage of a most effective extinguishing agent and a wide-spread, soft volume discharge that doesn't fan or drag along air. Even an inexperienced operator can attack a fire without fear behind the "cool" protective wall of dry powder that's set up. Just pick it up, point the horn, pull the trigger. Kidde Dry Chemical portables come in 5, 20 and 30 pounds. Write us today for full information.

Kidde

Walter Kidde & Company, Inc.,

290 Main Street, Belleville 9, N. J.

Walter Kidde & Company of Canada, Ltd., Montreal, P. Q.

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y. FEBRUARY, 1953

To Meet Demand, Avisco Expanding Range and Output of Filatex

Greatly enlarged capacity for producing covered Filatex elastic yarns, as well as bare latex core yarns, will soon make these extremely useful products available for more manufacturers.

New machines being installed at the Roanoke, Va., plant of American Viscose Corporation will be able to increase production of Filatex and will more than double capacity for making bare latex core yarns. They will also greatly increase the range of sizes, supplying them from 18's to 125's.

The expansion is in response to increased demand for both covered and bare coarse elastic threads for braiding and narrow fabrics. Filatex is already widely used for men's half hose, and children's socks. It is also used in surgical stockings and bandages, football pants, women's foundation garments, shoe fabrics, swim suits, and by the shirring and embroidery trades.

Operator inspects beam-to-spool machine at Filatex Department of American Viscose Corporation, Roanoke, Va., where new machines will soon boost production capacities.

The new capacity is expected to put Filatex yarns in suspenders, garters, elastic tapes and bindings, athletic supporters, gloves and wrist-bands and collars for outerwear garments.

Yarns will be available covered with rayon, nylon and cotton in a full range of sizes, as will bare latex core. The corporation's unique method of making Filatex will be continued for sizes finer than 65's.

RAYON 20 YEARS AGO

NEW YORK, February, 1933—Practically all ready-to-wear men's apparel made today is lined with rayon.

NEW YORK, February, 1933—Rayon dresses are getting top emphasis in department store advertising for spring fashions.

NEW YORK, February, 1933—The rayon industry is now an important employer of men and women in 15 states.

MAKE USE OF *Avisco*® 4-PLY SERVICE

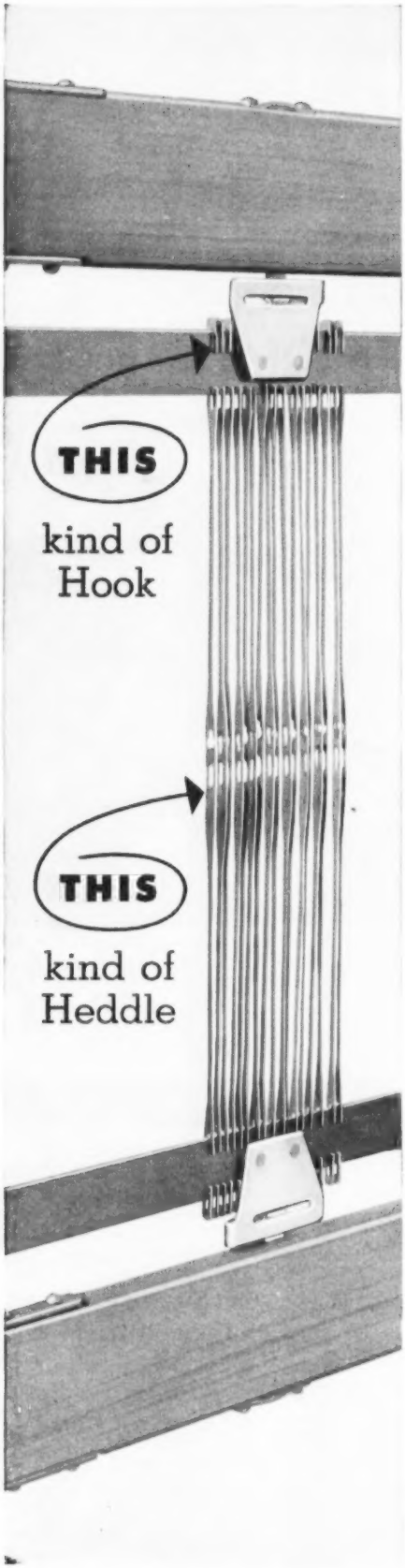
To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

America's first producer of man-made fibers
RAYON ACETATE VINYON* FILATEX®
Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

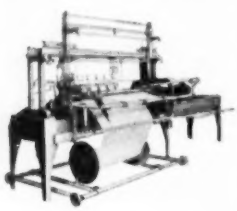
*TMC & CCC



You can improve your weaving **NOW** and be ready for a Warp Drawing Machine **LATER** if you will gradually re-equip with **FULL-FLOATING** type Harness Frames and key-hole type Heddles...

The Barber-Colman Warp Drawing Machine requires equipping your looms with harness having steel heddles of the type shown here, in order that the selecting mechanism may properly position the correct heddle eye for each drawing-in needle stroke. Also, these harness must have support bar hooks of the type shown, in order that the heddles may move freely the full length of the frame. The machine holds the heddles in a group, setting them off at proper intervals as each is drawn. This full-floating construction *improves weaving immediately* by removing restrictions and permitting each heddle to find its proper in-line position in the frame.

Now, the cost of such harness may amount to more than the cost of the Warp Drawing Machine. This should not discourage consideration of the machine, in view of the advantages of substantial cost savings in warp preparation. Since you are replacing heddles and harness frames frequently and constantly as they wear out — why not start *now* to replace with the type that can be used on a Barber-Colman Warp Drawing Machine? Then, when you are ready for the machine, the problem of special harness will have been solved. For details in connection with such a program, we suggest you consult your Barber-Colman representative.



Automatic Spoolers • Super-Speed Warpers • Warp Tying Machines • Drawing-In Machines

BARBER-COLMAN COMPANY

ROCKFORD, ILLINOIS, U. S. A.

FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A.

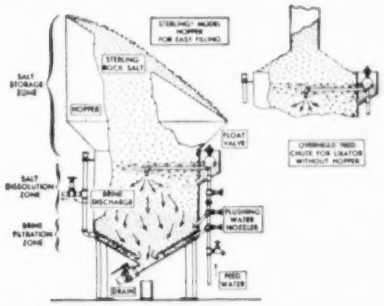
MANCHESTER, ENGLAND • MUNICH, GERMANY

COMPARE

LIXATE BRINE vs. ORDINARY BRINE

	LIXATE BRINE	ORDINARY BRINE
Salt Storage	Above or near the Lixator hopper	In separate piles or bins
Brine Storage	None. Made as needed	In separate vats
Handling Costs	Zero	Cost of labor
Measurement	100% accurate	Guesswork
Saturation	100%	Haphazard
Preparation	Automatic	Cost of labor
Distribution	Piped	Cost of labor

the LIXATE* process for making brine



HOW LIXATOR WORKS

In the dissolution zone—flowing through a bed of Sterling Rock Salt which is continuously replenished by gravity feed, water dissolves salt to form 100% saturated brine. **In the filtration zone**—through use of the *self-filtration* principle *originated by International Salt Company*, the saturated brine is thoroughly filtered through a bed of *un*dissolved rock salt. The rock salt itself filters the brine. Nothing else is needed.

INTERNATIONAL SALT CO., INC.
SCRANTON, PENNSYLVANIA

SALES OFFICES: Atlanta, Ga. • Chicago, Ill. New Orleans, La. • Boston, Mass. • St. Louis, Mo. Newark, N. J. • Buffalo, N. Y. • New York, N. Y. Cincinnati, O. • Philadelphia, Pa. • Pittsburgh, Pa. Richmond, Va. • ENGINEERING OFFICES: Atlanta, Ga. Chicago, Ill. • Buffalo, N. Y. *Reg. U. S. Pat. Off.

MAKING BRINE need no longer be complicated, inaccurate, costly. Now, thanks to the LIXATE Process, developed by the International Salt Company, you can have brine *automatically*—where you want it—when you want it—*at the turn of a valve.*

Because this pure brine is *always* 100% saturated brine—because it *always* contains exactly 2.65 pounds of salt per gallon—your brine measurements are always exact—100% accurate.

Hundreds of companies have already saved thousands of dollars, have improved the quality of their products by installing the International Salt Company's *Lixate* Process. Let International's Industrial Division help *you.* Send the coupon below, today.

INTERNATIONAL SALT COMPANY, INC.
INDUSTRIAL DIVISION, Scranton 2, Pa.

I am interested in knowing what the *Lixate* Process can do for MY plant. Please have an International Industrial Engineer contact me as soon as possible. I understand there is no cost, no obligation.

FIRM NAME _____

ADDRESS _____

CITY _____ ZONE _____

STATE _____

MY NAME _____

MY TITLE _____

from Forging to Finish

WHITIN RINGS are under Constant Quality Control

Scores of skilled ring-makers are busy today in the Ring Department at Whitin making the highest quality rings — rings that are so vital to the spinning and twisting of all fibers, both natural and synthetic. Operating 200 modern machine tools, they are capable of producing 1,500,000 rings a year in thousands of types* and sizes.

During each phase of the manufacturing process, starting with the forging of ring blanks and carrying on through turning, machining, heat treating, grinding and polishing to final inspection, Whitin rings are under constant quality control. Only the highest quality ring steel *made to Whitin specifications* and held to rigid metallurgical standards is used. The dimensions, hardness, depth of case, circularity and concentricity of each ring are tested by precision gauges and instruments to insure acceptability within close tolerances.

That's why so many mills the world over are aware of, and acknowledge, the superior quality of Whitin rings. Performance records prove that they pay real dividends in fewer ends down, longer ring and traveler life — better quality yarn.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Whitin also manufactures the Herr Conical Ring

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, N. C. • DEXTER, ME.

PEREGAL O

FOR DYEING AT ITS LEVEL BEST

vat colors

retards exhaust . . . promotes leveling . . . corrects uneven dyeing results . . . increases dyebath and pad liquor stability . . . reduces shade depth of overdyed cellulosic fibers.

direct colors

improves solidity of shade . . . retards exhaust . . . for partial stripping of overdyed material . . . for correcting shade of unevenly dyed cellulosic fibers.

basic colors

improves leveling and penetration . . . discourages bronziness . . . improves rubbing fastness . . . is a dispersant in color pasting.

PEREGAL O
IS THE
NUMBER ONE
DYEING ASSISTANT
FOR:
VAT COLORS
DIRECT COLORS
and
BASIC COLORS

gdc ANTARA gaf

ANTARA® CHEMICALS
(Division of General Dyestuff Corporation)
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BRANCHES: Boston · Providence · Philadelphia · Charlotte, N. C. · Chicago · Portland, Ore. · San Francisco
IN CANADA: Chemical Developments of Canada Limited, Montreal

Standards are of No Value Unless Adhered to

UNIFORMITY IS THE ACID TEST THAT YOU ARE INTERESTED IN

Butt and tip are gauged as accurately as the rings

A LARGE percentage of the smashes on automatic looms are caused by improperly constructed bobbins.

Without accurately made bobbins, the automatic bobbin-changing loom must necessarily be a failure.

When these looms were first introduced, the U S Bobbin & Shuttle Company developed and perfected the automatic loom bobbin, and for seventeen years, the duration of the original patent, was the exclusive manufacturer.

Rings must be straight and not wavy so that spacing will be uniform. We gauge every ring to make sure they are straight. Rings must all be of just the right temper and spring so that they will not get loose or break. We temper our own in electric ovens, controlling the tempering process scientifically so that every ring is alike.

We are unique amongst bobbin makers, in that we "roll our own" rings from start to finish to make sure that faulty rings do not undo the painstaking care we use in selecting the stock and the operations of boring, reaming, shaping, sizing, and finishing automatic loom bobbins.

It takes four of our factories to produce the millions of better automatic loom bobbins called for every year.

Have you tried them? Place your order to-day. Write, phone, or wire our nearest office for service.

U S BOBBIN & SHUTTLE CO.

BUILDERS OF UNIFORMLY SUPERIOR BOBBINS, SPOOLS, AND SHUTTLES

U S BOBBIN & SHUTTLE CO.

invented, patented, and developed

THE AUTOMATIC LOOM BOBBIN

***25** years ago we said this, and some facts are worth repeating:*

"When these looms (automatic looms) were first introduced, the U S Bobbin & Shuttle Company developed and perfected the automatic loom bobbin, and for seventeen years, the duration of the original patent, was the exclusive manufacturer."

U S BOBBIN & SHUTTLE CO.

U S makes Bobbins, Spools, Cones and Rolls; Shuttles for all automatic and shuttle-changing looms; Warper Beam Heads and Warper Beams for Cotton, Rayon and Nylon.

Manufacturing Plants
LAWRENCE, MASS. GREENVILLE, S. C.

General Sales Office LAWRENCE, MASS.

Southern Division Headquarters So. Carolina National Bank Bldg., GREENVILLE, S. C.
CHARLOTTE, N. C. JOHNSON CITY, TENN. FORT MILL, S. C. LaGRANGE, GA.
PHILADELPHIA, PA. PROVIDENCE, R. I. MINNEAPOLIS, MINN.
DALLAS: O. T. Daniel, Textile Supply Co. LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave.
CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

Marquette

HEAVY DUTY TWISTER SPINDLE

WITH TOGGLE BRAKE

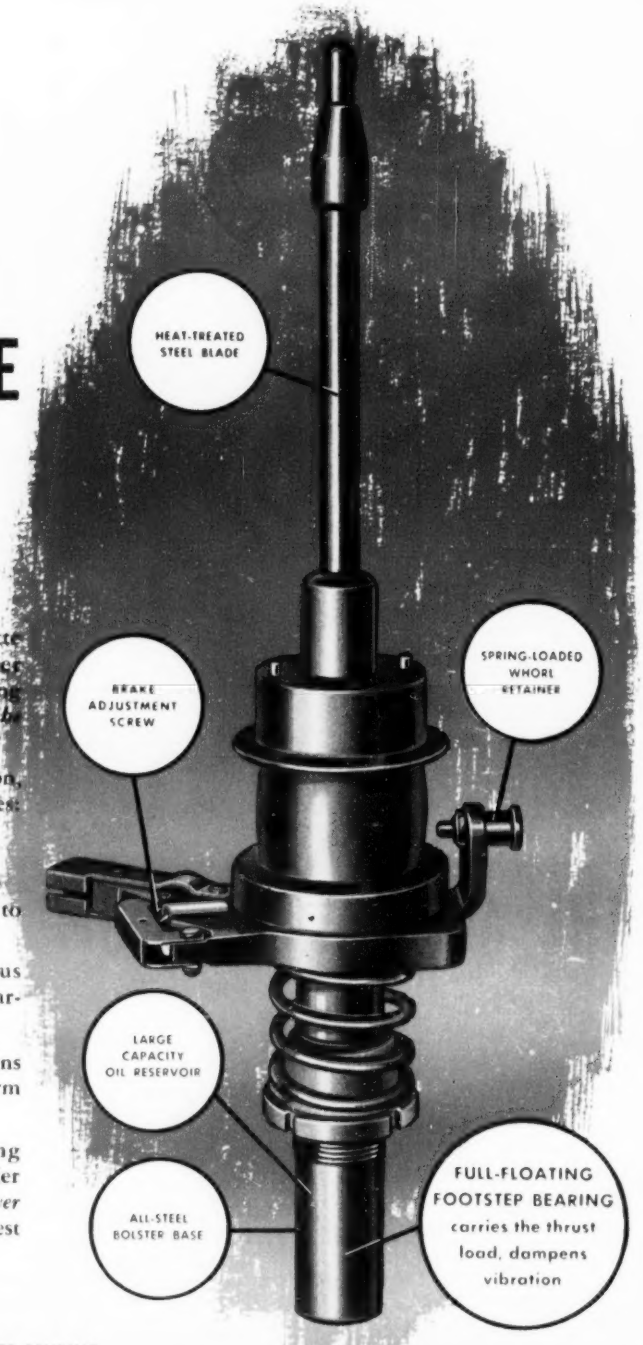
for packages up to 13 lb. gross weight

Shown at the right is one of the large Marquette Heavy Duty Twister Spindles. There are other models in the complete Marquette line, differing in size and in type of brake, *but all embodying the basic Marquette features.*

As a result of the unique Marquette construction, these spindles give you many important advantages:

- Minimum power consumption.
- Less maintenance attention is required.
- Brake is fully enclosed, and is impervious to oil and moisture.
- Production is increased through continuous operation at high speeds. Oversize roller bearing takes the radial load.
- FLOATING FOOTSTEP BEARING dampens or eliminates vibration, resulting in uniform speed and an even twist.

For every twisting, spinning and throwing operation . . . on all textiles . . . Marquette Roller Bearing Spindles assure you *more yarn at lower cost.* We'll be glad to prove this through a test installation in your mill.


HEAT-TREATED STEEL BLADE
BRAKE ADJUSTMENT SCREW
SPRING-LOADED WHORL RETAINER
LARGE CAPACITY OIL RESERVOIR
ALL-STEEL BOLSTER BASE
FULL-FLOATING FOOTSTEP BEARING carries the thrust load, dampens vibration

CATALOG ON REQUEST

PROTECTED BY U.S. AND FOREIGN PATENTS AND PATENTS PENDING

The Marquette METAL PRODUCTS COMPANY

CLEVELAND 10, OHIO • SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Representatives: C. H. WHITE, 2300 ROSWELL AVE., CHARLOTTE, N. C.; WILLIAM P. RUSSELL, BOX 778, ATLANTA, GA.
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Also Manufacturers of: HYDRAULIC GOVERNORS • FUEL OIL PUMPS • PRECISION PARTS AND ASSEMBLIES
WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • FUEL OIL INJECTORS

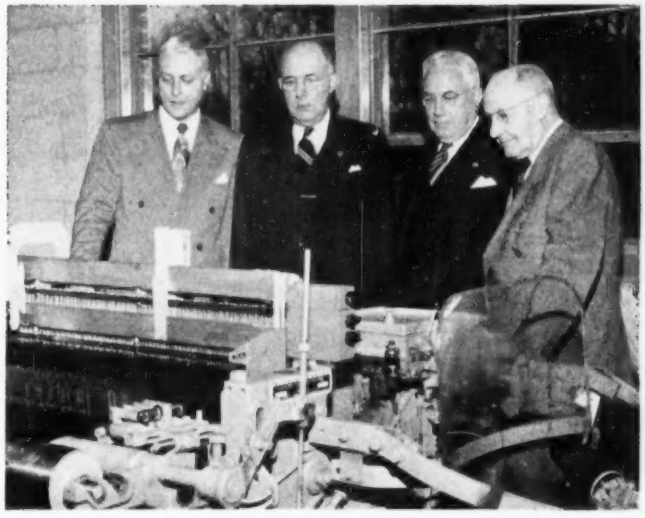
News IN BRIEF

S. C. Gets New Standards Association. The Southern Textile Methods and Standards Association has filed a charter for incorporation in Columbia, S. C. The non-profit organization is for the purpose of "advancement of sound and equitable principles of industrial engineering." Officials are: Ned Bobo, Pacific Mills, Lyman, S. C., president; L. C. Sheehan, Bibb Manufacturing Co., Macon, Ga., vice-president. Directors are: Rhett Ball, Bruce Payne & Associates, Atlanta, Ga.; Julius M. Ramsay, Jr., Waldensian Hosiery Mills, Valdese, N. C.; C. E. Lawton, American Thread Co., Dalton, Ga.; J. E. Sullivan, U. S. Rubber Co., Winnsboro Mills, Winnsboro, S. C.

Outlay for Textile Equipment. The textile mills will have spent 512 million dollars for new plants and equipment in 1952, according to a government report. The industry's capital expenditure for the first quarter of 1953 is estimated at 103 million dollars.

Stevens New Army Secretary. Robert T. Stevens, formerly chairman of the board of J. P. Stevens & Co., is the new Secretary of the Army. During World War II Mr. Stevens served as a colonel in the Quartermaster Corps; he was a second lieutenant of field artillery in World War I.

American System Will Dominate Spinning. The Spinner's Guild of the National Association of Woolen and Worsted Overseers will be confronted with industry-wide conversion to some form of the American system in the near future, predicted Wilfred Cabana, superintendent of Bachmann Uxbridge's Talladega, Ala., plant. Speaking at the organization's fall meeting in Boston, Mr. Cabana pointed out that machinery will have to conform to the fibers in principal demand. So far, pin control in drawing, and pins, aprons, and carrier rolls in roving and spinning have demonstrated capability in handling the new acrylic and polyester fibers to a better degree than the Bradford system.



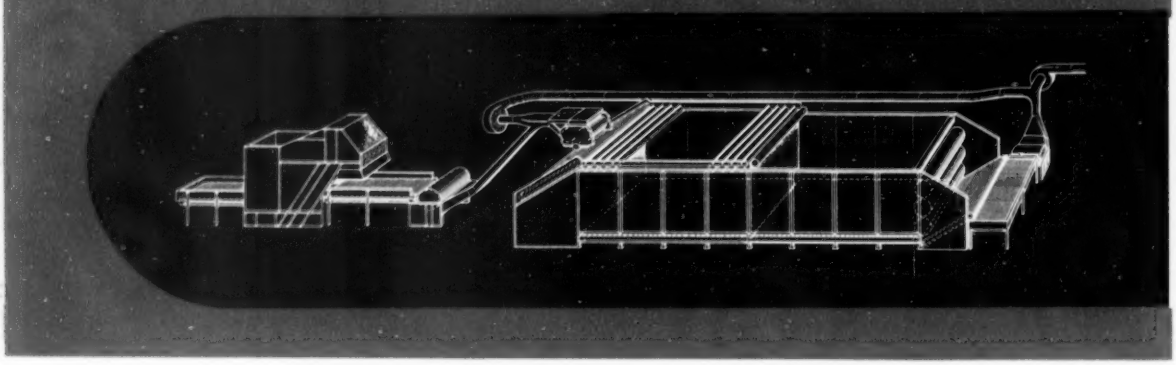
PTI Gets Sulzer Weaving Machine

A $10,000 Warner & Swasey Sulzer weaving machine was presented to the Philadelphia Textile Institute at a ceremony held on November 25th at the College, School House Lane and Henry Avenue, Germantown, Pa. Francis M. White, president of the American Woolen Co., made the presentation, a gift of the American Woolen Co.

In the photo above are (left to right): Bertrand W. Hayward, director of the Institute; Mr. White; Eugene R. Gardner of Warner & Swasey Co.; and Richard S. Cox, dean of the Institute.

Lost Rights to Jobs. 162 persons who did not return to work upon invitation of the Huntsville Manufacturing Co., Huntsville, Ala., lost their rights to reemployment, according to a ruling by NLRB. Complaints by TWUA-CIO were ruled out by NLRB. 112 persons who were later rehired by the mill were properly placed in the status of new employees. These employees can no longer count previous work at the mill as ap-

NOW: AUTOMATIC BLENDING WITHIN 1% ACCURACY...*for any size mill with a*



PROCTOR

Mill Engineered SYSTEM

Today it is possible for any textile mill to blend stocks automatically and hold the variance in the blend to less than 1%—through the use of a Proctor mill-engineered system. This accuracy (which never could be achieved by manual blending) means that the last yarn made from a blend is exactly the same as the first.

The exact arrangement—and the type of equipment employed in any system depend entirely upon individual mill requirements.

One typical Proctor system—in operation—is illustrated above. It is built around the Proctor roller distributor. Stocks for blending are deposited on bale breaker feed apron for opening and feeding to picker. From picker, stocks travel to ceiling condenser, which deposits them on inclined apron for feeding to roller distributors. Roller distributors are located over first section of blending bin. When this half of bin is filled, a curtain which divides it from the second section is raised and the floor apron moves stock to second section. Retracting pin rolls discharge stock to cross apron which feeds a second picker. It may then be blown back to ceiling condenser for reblending—or carried directly to the card room.

Thousands and thousands of pounds of stock are passing through Proctor systems every day —with the accuracy being reflected in all subsequent operations. When can we discuss your requirements?

PROCTOR & SCHWARTZ · INC · 610 TABOR ROAD · PHILADELPHIA 20 · PA ·

plying to their seniority. The ruling further means that approximately 50 former employees not rehired by the mill have no rights based on previous employment and if rehired, they would also be employed as new employees, without seniority.

Fiber and Spinning Test Results. Supplement No. 3 on "Fiber and Spinning Test Results for Some Varieties of Cotton Grown by Selected Cotton Improvement Groups, Crop of 1952" is available from the United States Department of Agriculture, Production and Marketing Administration, Cotton Branch, Washington, D. C.

Nylon Graft — What Next? "Where next?" is the question to be asked about nylon in Europe after a doctor in France developed a new nylon brassiere. Worn beneath the skin, the "straps" are fastened to the collar bones, and a brassiere can be "fitted" in only four hours on the operating table. The nylon is assimilated within the body and does not create any disturbance. Some Europeans are of the opinion that the new "falsies" may become increasingly popular.

Big Year for Plastics. Sales of raw materials in the plastics industry during the past year will be close to 1951, the record year for plastics sales volume, according to an official of the Bakelite Co., a division of Union Carbide and Carbon Corporation. 1953 is expected to be a good year for the plastics industry.

Knit Goods Shipments Up. October shipments of knitted cotton and wool underwear and nightwear, including outerwear shirts, were 6 per cent higher (dollar volume) than the October 1951 total. October production was higher than levels in either September 1952 or October 1951.

Wool Fabric Production. Third quarter (1952) production of fabrics containing 50 per cent or more wool amounted to 88.4 million linear yards. This was a 7 per cent increase over second quarter output. All of the increase was accounted for by apparel fabric production which was up 10 per cent from the previous quarter.

Bigger Parachutes for Army. Larger and better parachutes for use in delivering larger amounts of supplies and equipment by air to combat troops are under study by the Army Quartermaster Corps. Improvements in design of both parachutes and heavy equipment are being pushed by QM.

Course on Quality Control. Classes for a "Statistical Quality Control Course" will be conducted at Georgia Institute of Technology, February 27-March 6. Enrollment is open to men in industry. The course is designed for quality control engineers, supervisors, foremen, chief inspectors, design engineers, and purchasing agents.

New Winter Fabrics. Australian manufacturers have developed a woolen winter fabric which is reputed to be warmer than anything previously made. It is coated on the inside with a film of aluminum which reflects the heat of the wearer. It is further noted that in summer the fabric has the reverse effect.

Elastic Sewing Threads. The firm of Scharpenack and Teschenmacher of Wuppertal/Barmen (Germany) has introduced Merkur, an elastic sewing thread which is covered with Perlon. The thread is said to have great strength. Elastic thread has been on the market in Western Germany for about three years, but previously the thread has been covered with either cotton or rayon staple yarn.

1953 Maid of Cotton. Alice Corr of Selma, Ala., is the 1953 Maid of Cotton. A sophomore at the University of Alabama, she is the first Alabama girl to be selected to represent the American cotton industry as its fashion and goodwill ambassadress. Brownette "Maid

"Alabama Textile Roll of Honor—1952"

Reproduced here is a copy of the "Alabama Textile Roll of Honor — 1952" which the Alabama Cotton Manufacturers Association had designed and printed to honor those members of the Alabama cotton textile industry with impressive service records.

It contains the names of 21 of the oldest, in the point of service, textile operatives. At the head of the list is Pat McGarvin who has been employed continuously for 65 years by the Langdale Mill Division of West Point Mfg. Co. Mr. McGarvin was guest of honor at a meeting of the Association's Public Relations Committee in Birmingham on October 3rd, at which time he was presented with an engraved silver tray (see TEXTILE INDUSTRIES for December, page 73).

Last name on the scroll is that of Lawson H. Bannister of Alabama Mills, Inc., Clanton, Ala., with 24 years of service.

Officials of several mills planned to have brief ceremonies and present the scroll to their own oldest continuously employed operative named in the scroll, with their local newspaper representatives and civic officials invited to attend.

DAYCO COTS with amazing new discovery, IBROCOL, *successfully combat eyebrowing!*

Thanks to a new synthetic rubber blend containing the amazing ingredient, Ibrocol, Dayton Rubber research has been able to develop an entirely new and different Dayco Cot—EW-465—that successfully combats eyebrowing. Actual mill tests run on many frames prove this, and also that it drafts better yarn, requires fewer cleanings of the clearer boards, and runs longer between buffings than any other cot.

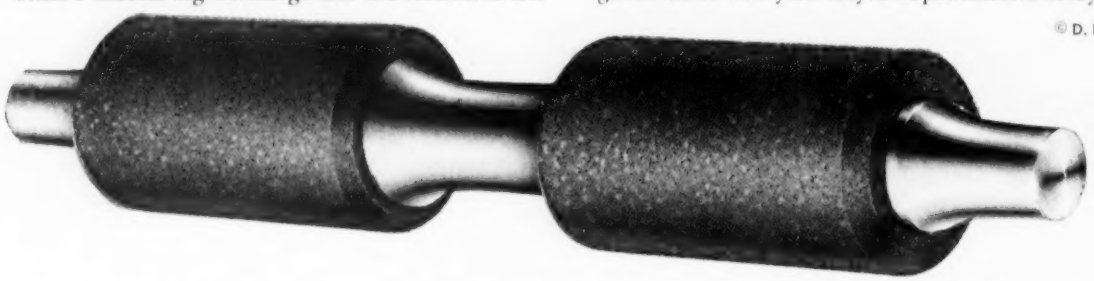
The addition of Ibrocol is the chief reason for this remarkable performance. Its chemical and mechanical action gives the cot a surface that maintains just the right coefficient of friction to remove only the short staple fibers and transfer them well back under the clearer board. Long staple fibers that could build up into eyebrows are left in the yarn. Hence there is less waste as well as less eyebrowing.

There's another big advantage too. The Ibrocol in the new Dayco Cot retards slicking and glazing. Thus the surface retains its coefficient of friction longer than any other synthetic cot. This means fewer buffings, greater savings.

In addition to its special features, the new EW-465 Dayco Cot also gives you all the other famous Dayco Cot advantages. They're unaffected by moisture or changes in temperature. Neither do they groove, pit, or develop flat spots. As a result of these many features, Daycos give you fewer ends down, less lap ups, less eyebrowing, better drafting on all types of frames using either natural or synthetic fibers.

Whether you want to overcome eyebrowing or any other cot problem, you'll find that Dayco Cots are the right answer to help you secure the highest quality production at the lowest possible cost. For the whole story, get in touch with your Dayco Representative today.

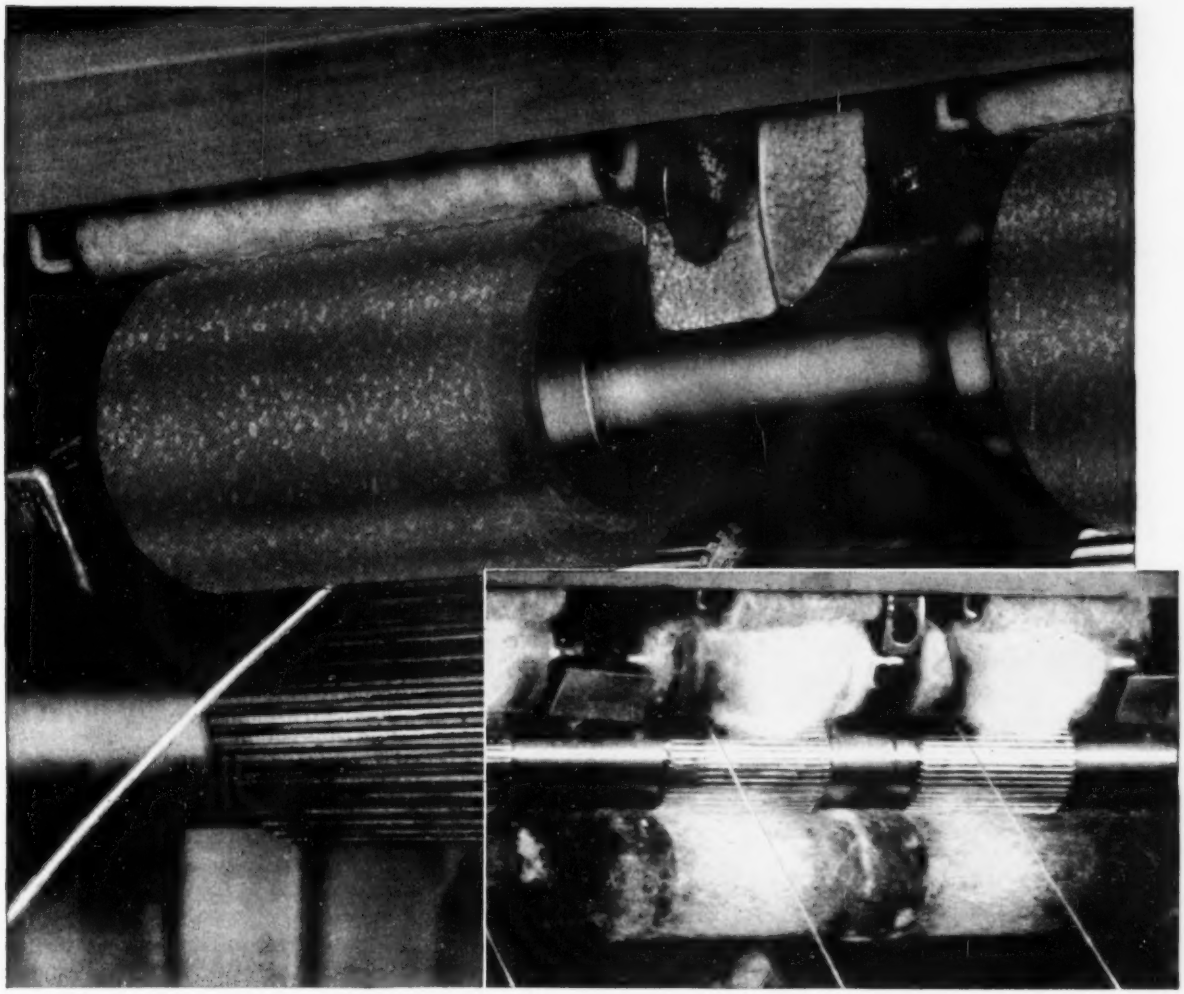
© D. R. 1953

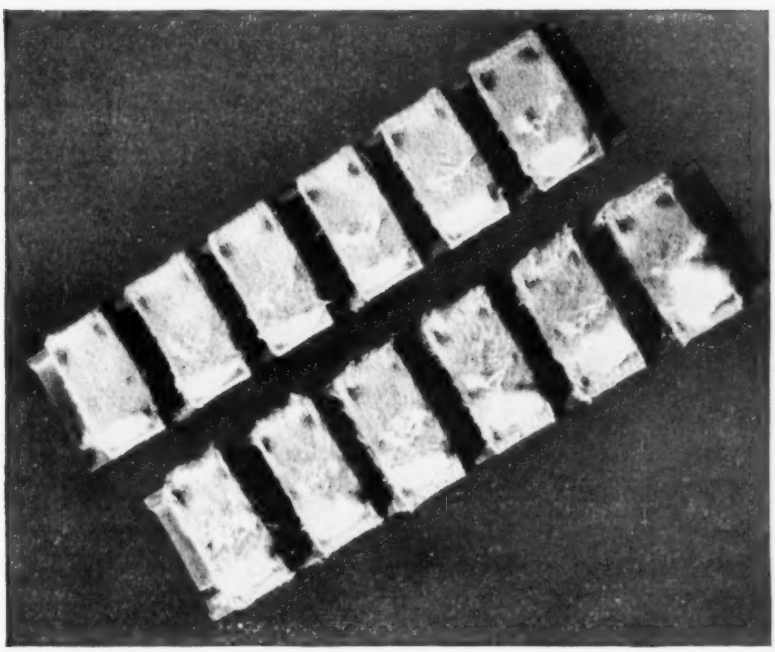


According to actual mill tests, this new Dayco Cot with IBROCOL successfully combats eyebrowing, drafts better yarn, and runs longer between buffings.

Dayton Rubber
Since 1905
Textile Products for Better Spinning and Weaving

DAYTON RUBBER CO., TEXTILE DIVISION, WOODSIDE BUILDING, GREENVILLE, S. C.



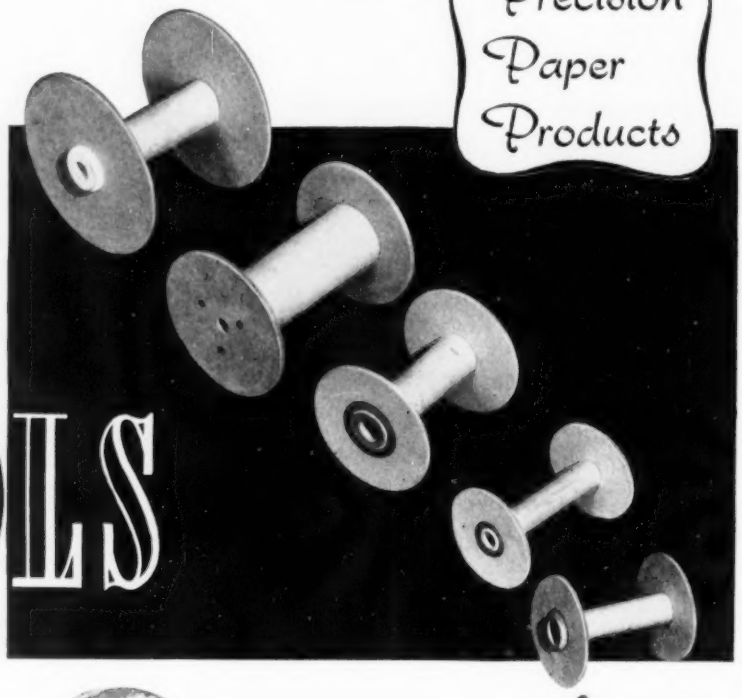


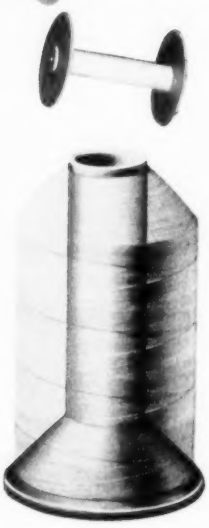
Compare the non-eyebrowing performance of these new EW-465 Dayco Cots shown above in the large illustration, with the condition of another make, shown in the inset. You immediately see why mills who have tried the new Dayco Cots are so enthusiastic. An accurate check in a great many mills over a period up to one year showed that the new Dayco EW-465 Cot did not eyebrow while other cots did.

The clearer board on the top came from a stand of new EW-465 Dayco Cots. These cots were run on the frame exactly the same length of time as the bottom clearer board taken from an adjacent stand of different make cots. Note the difference in the clearer waste. This is because the Dayco's remove only short staple fibres, packing them well back under the clearer board away from possible pickup by the end.

SONOCO SPOOLS

Precision Paper Products





Knitting Arts Exhibition
Atlantic City
April 22-May 1, 1953
Booths 373 and 374

Specifically developed as perfect carriers for all types fringe, tapes, braid—narrow or wide fabrics, threads, yarns, cord and rope. SONOCO has a spool to give you an efficient, low cost package. All standard types and sizes, or made to your individual requirements in special sizes.

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MAIN OFFICE—HARTSVILLE, S. C.

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PHILADELPHIA, PA. GARWOOD, N. J. LOWELL, MASS. GRANBY, QUE.

DEPENDABLE SOURCE OF SUPPLY

Maid Alice Corr of Selma, Ala.

Alice" is 19 years old, green-eyed, and just over 5 feet 7 inches tall. Named as first and second alternates respectively were Jo Ann Turner of Yazoo City, Miss., and Bobette Bentley of Los Angeles, Calif.

The Old-School Tie. A four-point program which will work to the mutual advantage of the textile industry and its educational institutions is proposed by Martin J. Lydon, president of Lowell Textile Institute: (1) Schools initiate or exchange instructors for a semester; (2) Academic leaves of absence for one year which will enable instructors to work in industry and observe the latest practices as well as avail industry of their technological background; (3) Industrial leaves of absence which will operate in reverse of point (2); (4) Mutual exchange of information.

Slasher Beam Handling in Germany. An engineer in Germany has devised a series of stands to save space and time in handling slasher beams. The stand handles all beams from the floor by electric hoist on the conveyor belt principle. All beams are held one above the other in two banks, saving the space usually taken when beams are put side by side. The stand is in duplicate, allowing one stand to be loaded ready for sizing while yarn from the other beams is passing through the machine. The two stands are placed on a turntable so that the second stand, which has already been threaded and ready for the slasher, is swivelled 180 degrees into position, allowing almost continuous use of the slasher. Floor space is saved, minimum labor is required, and maximum slasher usage are advantages for the stands.

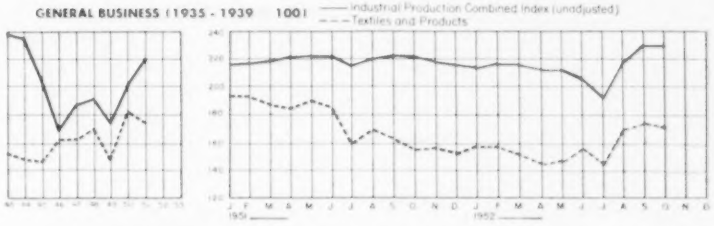
News in Brief

Sales Meet by TV. First-time use of Theater Network Television to hold a manufacturer-retailer national sales meeting was recorded on December 8. James Lees & Sons Co. beamed its 1953 plans to hundreds of dealers across the nation. Originating in New York City, the hour-long sales meeting was "piped" live into 18 theaters in 17 major cities. Lees executives gave highlights of their selling plans for next year.

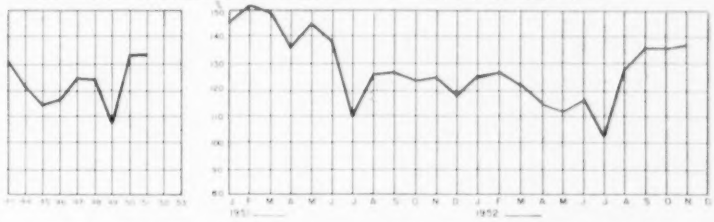
Textile Industry Activity Charts

Source of information: Bureau of the Census, U. S. Department of Commerce; National Association of Hosiery Manufacturers.

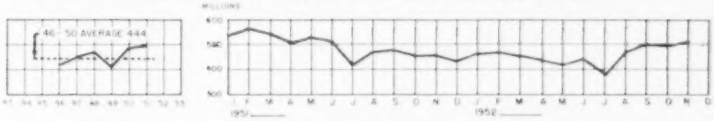
GENERAL BUSINESS (1935 - 1939 100) —— Industrial Production Combined Index (unadjusted) - - - Textiles and Products



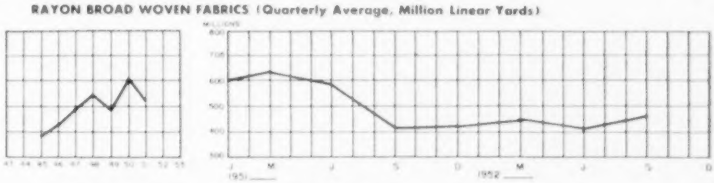
COTTON SYSTEM SPINNING ACTIVITY (ALL FIBERS)—% of Capacity (10-hour day)



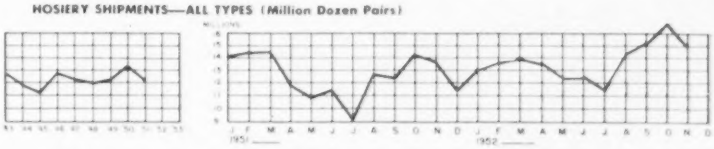
COTTON SYSTEM AVERAGE SPINDLE HOURS (Millions) PER WORKING DAY—ALL FIBERS



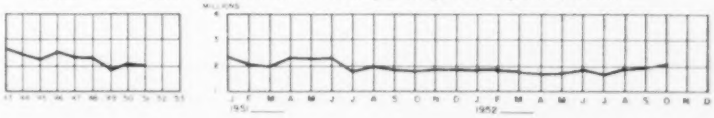
RAYON BROAD WOVEN FABRICS (Quarterly Average, Million Linear Yards)



HOSIERY SHIPMENTS—ALL TYPES (Million Dozen Pairs)



WOOLEN and WORSTED LOOM ACTIVITY (Weekly Average Hours Operated, Millions)



AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

BY THE TIME you read this, the Honorable Maurice J. Tobin, Secretary of Labor, will have folded his tent like the Arabs and silently stolen away. We feel that it is not an exaggeration to say that few textile executives will wear crepe arm bands to mourn his passing. A former Governor of Massachusetts and Mayor of Boston, Mr. Tobin has favored the textile industry with his very close attention. Certainly, he can take considerable credit for aggravating the so-called North-South dispute.

Walsh-Healey

Some months ago, it became apparent that Mr. Tobin had a burning zeal to do something about the minimum wage which must be paid in textile plants operating on government contracts of more than $10,000.00. For a number of years this minimum had been 87¢ an hour and he had indicated the desire to raise this to some more "representative" figure. In earlier articles in this space, we have told you something of the background which led up to the hearings held in Washington in September. You will recall that the Department of Labor conducted hearings which lasted for several days, and at that time representatives were heard. In the main, the industry-wide fight against more meddling in government wages was led by the American Cotton Manufacturers Institute.

Since the hearing, Mr. Tobin, presumably, has been weighing the voluminous evidence which was submitted by the contesting parties. At long last, however, he has made up his mind and, as this is written, his preliminary proposal is that the minimum for the cotton, silk, and synthetic branches of the textile industry will be $1.00.

You will probably also recall that one of the principal points for discussion at the September hearing was whether the wage figure should be determined on a *national* basis, or on a *locality* basis. The ACMI contended that since the Act said "localities" that Mr. Tobin should read the law and then stick to it.

In his proposed determination, however, the Secretary has found that by carefully scrutinizing a few commas, plus a little jargon juggling, it is not at all impossible to forget that a rose by any other name is still a rose. He determined that since textile goods are sold on the national market, there should be a national minimum. The Secretary carefully refrained from mentioning that only a few months ago he established several regional minima for the paint and varnish industry and that paint is also sold pretty much on the national market.

The natural question in the mind of any mill man who contemplates taking, or bidding for, a government order is—Where do we go from here?

As of December 26 the Secretary was to consider any objections or exceptions which may be filed to his proposed order, and, after giving due consideration to all of these, he was to make up his mind as to whether he would make his proposed $1.00 minimum final and definite. With his party going out of office on January 20, nobody could quite conceive of his changing his mind about the wage figure. However, once he has made

You May Have Use for These Reprints

(Up to five free, quantity orders at cost)

If you have been perturbed about the way government has grown, the increase in the national debt, high taxes—and if you would like to do something about these problems—we can furnish reprints of articles from our December, January, and this issue (see page 136), to pass along to your representatives in Congress.

The series started in December with Laurence F. Lee, president, Chamber of Commerce of the United States, writing on "How Much Government Shall We Hire?" In January, Senator Harry F. Byrd pointed out that the average American family's share of the Federal debt is $5860; his article was "Freedom Demands a Solvent America." In this issue John W. Hanes, chairman, Tax Foundation, discusses "Opportunities for Tax Reduction."

The articles, written exclusively for W. R. C. Smith publications, would also serve a useful purpose if distributed to employees or if reprinted in employee publications.

Up to five reprints of each article will be sent free upon request; quantity orders will be supplied at cost.—Eds.

up his mind to let the $1.00 stand, he must then issue an official notice in which he will advise the industry of that fact. Ordinarily, the new $1.00 minimum would not be made effective until some sixty days after his final announcement, and, if things run true to form in this case, the new figure might not go into effect until March.

There are, however, one or two flies, or other foreign objects, in this kettle of codfish. It is now no secret that the ACMI will take every legal means at its disposal to stop Mr. Tobin in his tracks. Unless something gives somewhere along the line, this means that the textile Walsh-Healey case will wind up before the Supreme Court. Informed lawyers guess that this could take as long as two years. It appears likely that the ACMI strategy will be to try to obtain an injunction against the new $1.00 minimum, and if this should be granted the effect would be to keep the figure at 87¢ until the courts had made a final decision.

Nevertheless, it is an old story that many a cup has slipped before reaching the lip. If this should happen, and the new minimum should be placed in effect, then many smaller mills, particularly yarn mills, would find themselves faced with the necessity of deciding whether they would forego all government contracts, or whether they would raise their wage rates. Keep in mind also that an increase in the *minimum* rate almost invariably means that it is necessary to raise the wages of job classifications above the minimum. When this happens to several mills in a community, it means that the ripples move outward and touch larger mills which may have a higher wage scale. Sometimes these larger mills then find it necessary to make adjustments.

The man who is trying to decide, during this interim, whether or not he should get himself involved in a government contract, had better consult some good lawyer.

Exit Mr. Tobin

As we said at the beginning of this short piece, few textile executives are going to mourn the passing of Maurice J. Tobin from the public scene. What the new administration will have in store through Mr. Durkin, the new Secretary of Labor, we cannot say but this writer is one who is willing to risk it.

No doubt, readers of TEXTILE INDUSTRIES will recall the sickening and somewhat terrifying disclosures with regard to the labor situation on the New York Docks. If the facts thus far disclosed are indicative of the malignancy below the surface, the American people have a right to be thoroughly shocked and disgusted. All of this was going on, of course, while Mr. Tobin was Secretary of Labor. Granted that this and perhaps other things have gone on under previous secretaries, nevertheless it may be significant that thus far no official voice has been raised in the Department of Labor to condemn these waterfront tactics.

Some cynic has asked if perhaps Mr. Tobin was engrossed in trying to raise the textile minimum wage while Rome was burning on the New York docks. Be that as it may, Mr. Tobin leaves to his successor a pretty kettle of fish in the Walsh-Healey matter.

William Shakespeare once said that men have their exits and their entrances. In this case, we are glad that it happens to be an exit.

Feb. 18-20—Fourth annual Cotton Research Clinic, General Oglethorpe Hotel, Savannah, Ga.

Mar. 26-28—Annual convention, **American Cotton Manufacturers Institute**, Palm Beach Biltmore Hotel, Palm Beach, Fla.

April 9-11—Annual convention, **Alabama Cotton Manufacturers Association**, Buena Vista Hotel, Biloxi, Miss.

April 20-24—**National Packaging Exposition**, Navy Pier, Chicago, Ill.

April 22-23—Spring meeting, **The Fiber Society**, New Orleans, La.

April 23-25—Annual convention, **Cotton Manufacturers Association of Georgia**, Boca Raton Hotel and Club, Boca Raton, Fla.

April 27-28—Annual convention and conference, **National Association of Hosiery Manufacturers**, Claridge Hotel, Atlantic City, N. J.

April 27-May 1—**Knitting Arts Exhibition**, Auditorium, Atlantic City, N. J.

April 27-May 8—**British Industries Fair**. Heavy Industry, Castle Bromwich, Birmingham, England; consumer goods, Olympia and Earls Court, London.

May 7-9—50th anniversary convention, **Phi Psi Textile Fraternity**, Penn-Sheraton Hotel, Philadelphia, Pa. Hosts: Philadelphia Textile Institute and Philadelphia Alumni Chapter.

May 18-22—**Materials Handling Exposition**, Convention Hall, Philadelphia, Pa.

May 25-30—Annual conference, **Textile Institute**, Llandudno, North Wales.

May 27-29—Meeting of **Textile Division, American Society for Quality Control**, Convention Hall, Philadelphia, Pa.

June 15-19—**Exposition of Basic Materials for Industry**, Grand Central Palace, New York, N. Y.

June 18-20—Annual meeting, **Southern Textile Association**, Mayview Manor, Blowing Rock, N. C.

June 29-July 3—Annual meeting, **American Society for Testing Materials**, Atlantic City, N. J.

July 27-31—**International Exposition of Fabrics, Fibers, Finishes, and Yarns**, Waldorf Astoria Hotel, New York City.

Sept. 10-11—Fall meeting, **The Fiber Society**, Lowell, Mass.

Sept. 17-19—Annual national convention, **American Association of Textile Chemists and Colorists**, Stevens Hotel, Chicago, Ill.

Oct. 15-16—47th annual meeting **North Carolina Cotton Manufacturers Association**, Carolina Hotel, Pinehurst, N. C.

1954

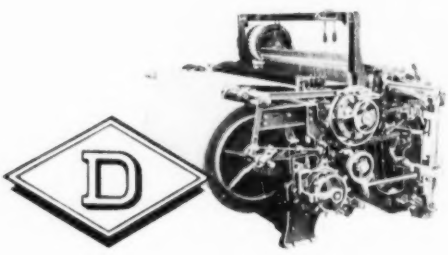
April 26-30—American Textile Machinery Exhibition (sponsored by American Textile Machinery Association), Atlantic City (N. J.) Auditorium.

NOW... Finer Quality Cottons FROM DRAPER X-2

with CENTER FORK FILLING MOTION and RATCHET TAKE-UP

The Draper X-2 Model with the new Center Fork Filling Motion and new Ratchet Take-up will give you matched pick goods of the same quality produced for years in synthetics on Draper XD looms.

High Speed Movies, taken at 3000 frames per second, show the action of the center fork on a filling break. The loom stops on the broken pick.



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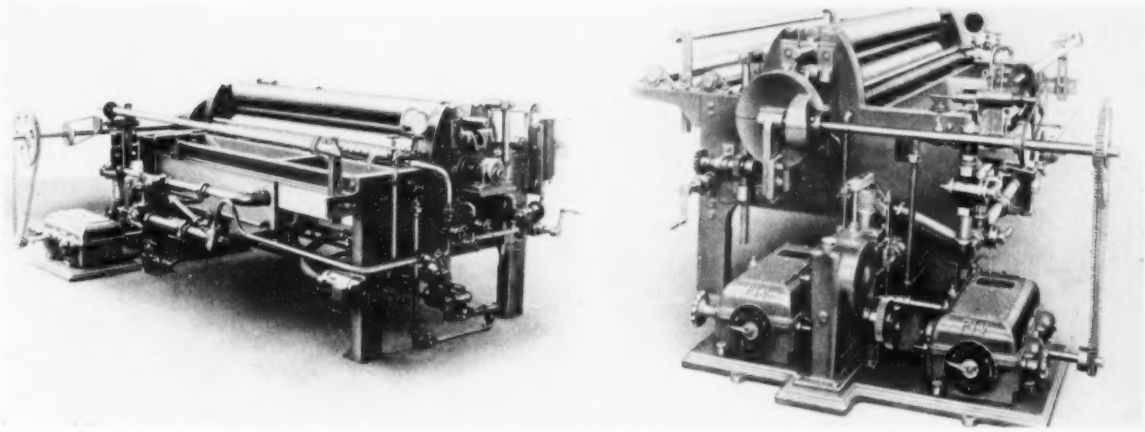
THE WORLD'S LARGEST MANUFACTURER OF AUTOMATIC LOOMS

NEW Equipment AND MATERIALS



Two views of the Shirley automatic size box which is now available through a U. S. agent.

Automatic Size Box Regulates Percentage of Size Applied to Warp

With the Shirley automatic size box, two views of which are shown here and full description of which appeared in TEXTILE INDUSTRIES for August 1952 (page 159), the operator can control size percentage to close limits simply by setting two pointers, and the size box will then maintain this desired percentage regardless of changing sizing conditions. Furthermore, these results can be accurately reproduced at any time.

The left photo is a front view of the box, showing the water feed pump and motor, the size distribution piping, and the thermostatic control for the size tank heater. Dials for setting the box for various percentages of size and different warp weights are visible in the photo at the right. The size metering pump is situated between the two gear boxes.

Atkinson, Haserick & Co., 211 Congress St., Boston 6, Mass.

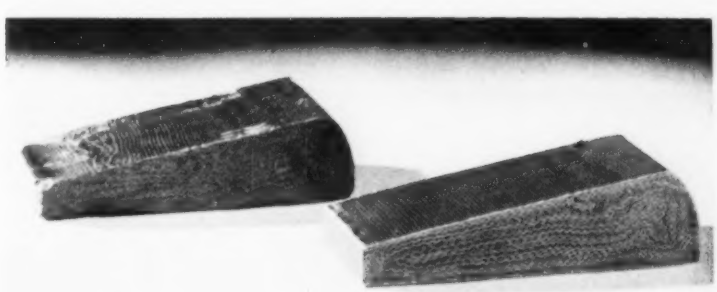
For additional data, request item B-112, using Handy Return Card on page 232.

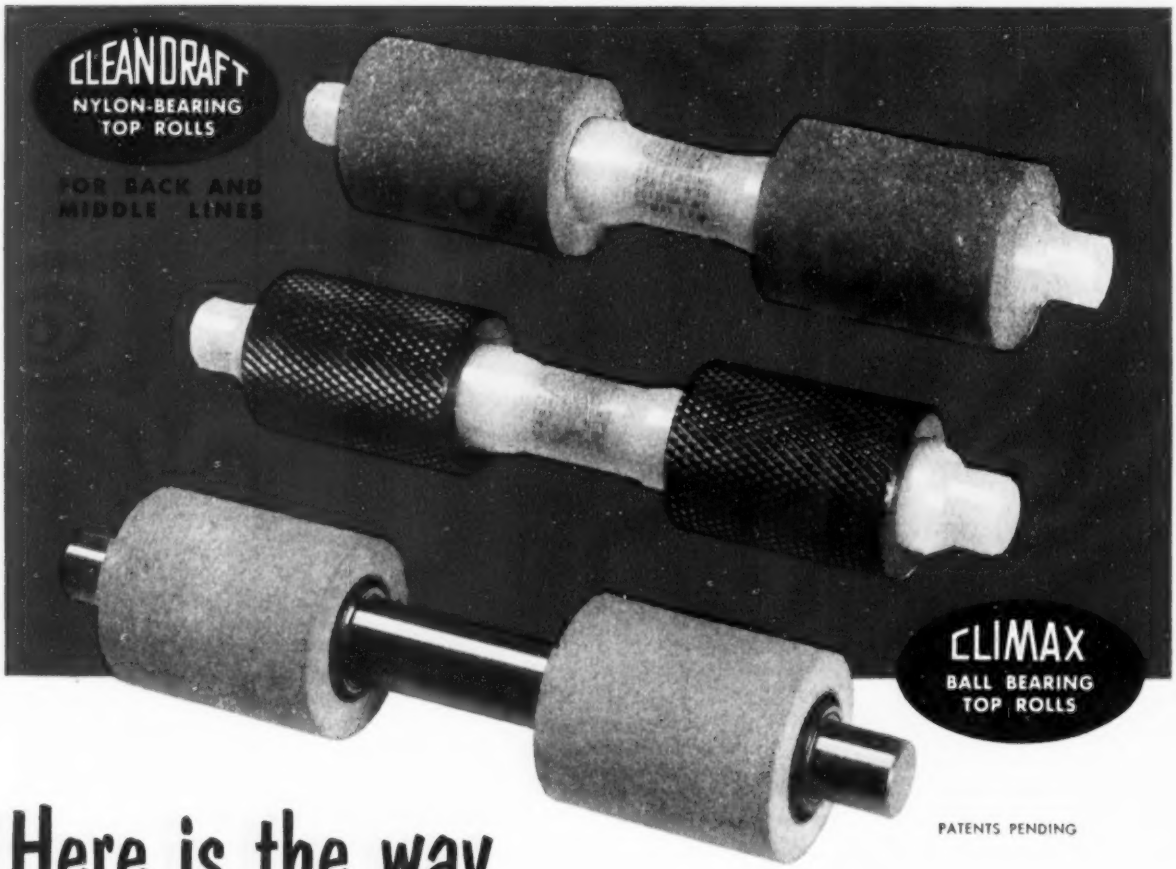
Parallel Plug Has High Impact Strength, Impervious to Oil and Water

A new parallel plug, 22SM, has extremely high impact strength and is impervious to oil and water. The plug is strip molded of Celoron, a canvas-based laminated plastic that is widely used for textile gears, etc.

This material has built-in resilience. Tests conducted by a leading mill show that when properly installed the new parallel plug lasts indefinitely and does not fracture, chip, or delaminate.

Celoron does not require lubrica-

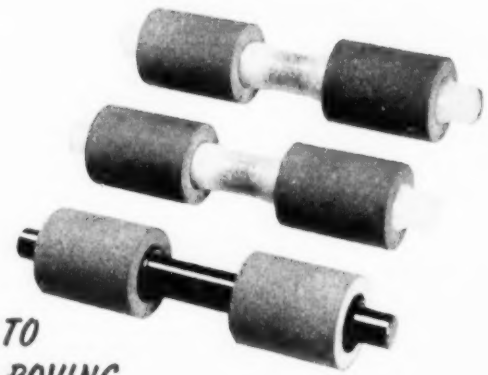




PATENTS PENDING

Here is the way

- to improve uniformity of yarn;
- to obtain consistent tensile strength;
- to eliminate all oiling expense;
- to greatly reduce picking cost; cycle extended to as much as once in 8 weeks:
- to get cleaner yarn free from oil.



THESE ROLLS APPLICABLE TO ALL SPINNING AND ROVING

FOR FURTHER INFORMATION ADDRESS

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FOREIGN REPRESENTATIVES IN THE PRINCIPAL TEXTILE CENTERS OF THE WORLD

CLIMAX ROLLS ARE MADE BY
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Ark., Texas, Okla.
Texas Roller Covering Works
2407 N. 17th Street
Waco, Texas

For European Service:
Victor Bennett
54 Boroughgate
Otley, Yorkshire, England

Whitin Machine Works has adopted CLIMAX Rolls as standard where anti-friction rolls are required and CLEANDRAFT Rolls on middle and back line of cotton and short staple synthetics spinning. Climax and Cleandraft Rolls are obtainable from Whitin Machine Works and its agents.

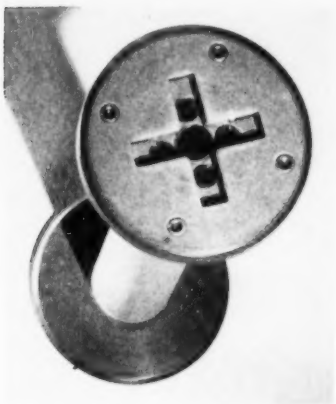
tion, as does metal, and therefore will not "freeze up."

Continental-Diamond Fibre Co., Newark, Delaware.

For additional data, request item B-201, using Handy Return Card on page 232.

Improvement Doubles Life of Twister Spool

The Akron Twister Spool, a spool with metal barrel and fiber heads designed especially to withstand the pressures of the newer synthetic fibers—particularly nylon—has recently been improved. A double slot in the form of an "X" on the drive head of the bobbin gives the spool



The Akron twister spool.

double life and service at the point where wear is greatest.

Also, the steel barrel is provided with a baked enamel wrinkle finish which makes yarn starting on the bobbin easier. The hard finish enamel will not chip or peel.

Akron Spool and Manufacturing Co., Cuyahoga Falls, Ohio.

For additional data, request item B-113, using Handy Return Card on page 232.

New Series of Light Fast Dyes for Wool, Nylon, Silk

A new series of dyestuffs for wool, nylon, and pure silk possesses excellent fastness to light and wet fastness properties approaching those of chrome dyestuffs. Designated the Irgalans, they can be used in combination and will work practically like a homogenous dyestuff, permitting the production of a varied range of shades.

Colors in the series are: Irgalan Grey BL, Irgalan Brown 2 RL, Irgalan Orange RL, Irgalan Brown 3 BL, Irgalan Yellow GL, Irgalan Olive BGL, Irgalan Brown 2 GL.

Individual bulletins containing the dyeing procedure, fastness properties, etc., are available on request; also bulletins displaying fashion shades on nylon and wool with the Irgalans.

Geigy Co., Inc., 89-91 Barclay St., New York 18, N. Y.

For additional data, request item B-116, using Handy Return Card on page 232.

NEW Equipment AND MATERIALS

2000 ppm Shuttleless Loom for Narrow Fabrics

A shuttleless loom which weaves fabrics up to three inches wide with a lock-stitch edge at speeds up to 2,000 picks per minute has been developed.

The single head machine employs a weft inserting needle at one side and a weft locking device on the other side. Warp and filling are both supplied from large cones.

The loom's filling action is said to be like that of a warp knitting machine; the warp motion like that of a conventional loom.

Labor cost of 1000 yards of zipper tape is estimated at 48 cents, since one operative can tend 48 of these looms. Six looms occupy only 24 sq ft floor space.

Disco Industries, 443 Greenwich St., New York, N. Y.

For additional data, request item B-109, using Handy Return Card on page 232.

Disco Industries' shuttleless loom weaving zipper tape.

Cleaner Cotton with Less Beating

Cotton can now be cleaned almost entirely with air, and with practically no beating, by utilizing Super-Jet Cleaners (described in TEXTILE INDUSTRIES for October 1950, page 184) in tandem. Cleaner stock is delivered because it takes out more trash, including grass, bark, shale, leaf-stems, and any other loose material heavier than cotton.

Beater sections included in the tandem arrangement are intended more as preparers of the stock for the Super-Jet Cleaners than as cleaners themselves, and while they take out a substantial amount of trash, their principal function is to deliver the cotton to the Super-Jet Cleaners in proper form for good cleaning. The first opener delivers about five blows per inch, and the second about two and one-half blows per inch. This nominal amount of beating can not injure the cotton, and does not break up much of the foreign matter.

The second Super-Jet Cleaner will take out from 65 to 100 per cent as much waste by weight as the first one. While the first Super-Jet Cleaner gets the heavier material, the second one in the tandem arrangement will often take out very nearly the same bulk of trash as the first one.

The cotton is delivered in a thoroughly opened condition, with no sign of curling or stringing. The Super-Jet Cleaning System can deliver directly to the pickers, or be followed by one of the conventional leaf trash removers, which will take out a great deal of specky material after the very thorough opening given to the cotton by the Super-Jet

(Continued on page 191)

the turn of a card . . .

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So, naturally, you back up your cards with the best!

Jenkins precision-built card screens allow the extra-close settings to card cylinders that result in *royal* gains for you . . . higher production . . . cleaner, more even carding . . . and more spinnable cotton saved.

Draw on the engineered uniformity of Jenkins card screens for sure steady profits. A letter, wire or phone call will place a Jenkins representative at your service.

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GASTONIA, NORTH CAROLINA

Shorts and Remnants

► Shorts & Remnants was feeling low the other day — down to its last kilowatt — when along comes a foreign letter addressed simply "806 Peachtree St., U.S.A." While spirits were raised over receiving on time the incompletely addressed letter, spirits dropped suddenly — the tax collector can find us just as easily.

► But we'll fool the revenuers yet, by doing more work in less time with scissors sold by Abbeon Supply of Jamaica, N. Y. They'll do 18 things, like cutting cigars and wire, measuring, filing nails, driving tacks and screws, cutting glass, etc. — also scissoring. In the handle is a picture of Grant's Tomb. That's for our Yankee readers. Southern readers supposedly could get an inlay of Stone Mountain or Bull Run. With Abbeon's scissors the Norwegians would have little to do but watch the fjords go by.*

► But on saving time, our friend in Europe takes the cake. He sends a single-page mimeographed letter in four languages, each of which says "kindly send us a specimen copy of your periodical." We frequently send specimen issues, but we don't like mimeographed requests; and the next one might get a different kind of specimen.

► Speaking of specimens, here's a specimen of a telegram one of our editors wired the home office: ED TI PTR ST ATL TRI WASH CONFLICTS ASME NY IRRI COT RGN DATA WARRANTS TI COVER ADVISE. We told him to use his own judgment.

► A passing piece of secondclass mail points out that odor has held women's interest for years and the inviting scent that draws millions of women to cosmetic counters can now be used to attract them to textiles. Already women's hosiery is perfumed, so we'll not take issue with the suggestion. But it will be interesting to watch the battle between odored fabrics and those treated with chlorophyll to remove odor. Like a strike of motormen, no one gains but the local newspaper.

► Word comes that National Production Authority orders and regulations may be obtained on a subscription basis for $11 per year. That is the stack of papers over there in the corner. See what you could have been reading for free?

► And with the price on government regulations behind us, we learn that since the political race the sale of television sets experienced a strong revival. Which just goes to show you that people not only want to hear naughty language, but see it.

► From Massachusetts our good friend wants 10 copies of "How to Get Square Cloth in Wet Processing." Requirements certainly differ with the seasons. We want 10 copies of "How to Get Square with the Income Tax Collector."

► One of our functions is to interpret news. Only sometimes are we successful. Here is a word-for-word conversation between two mill men at a recent technical meeting (both sober):

Mr. A. *How close a nip can you get between the front of the apron and the delivery?*

Mr. B. Well, now, when you talk about the nip we have to be careful here.

Mr. A. *Nip to nip.*

Mr. B. Since we got these rolls with the ball bearings on the end, we actually don't have a nip there.

Mr. A. *But you have a snub there?*

Mr. B. You see this roll is still not nipping on the nose of the apron bar, is it?

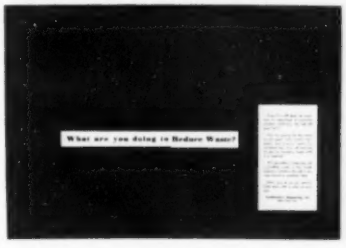
Mr. A. *But how close is this snub?*

Mr. B. When this thing comes down in the way forward position — I think what you mean is when that sets down in there?

Mr. A. *Yes, from there to there.*

A second reading helped us recall that we had one, but the wheels came off.

► Not all of our readers are mill men. Children of TI's staff also glance through the mag to see what Dad did all last month while Mom was slaving away at home. Flipping through one issue, son was stopped by the Southeastern Engineering ad:



"Wasted space." (TI for December, pages 46 & 47.)

reading carefully "What . . . are . . . you doing . . . to . . . Reduce . . . Waste?" Then hastily: "They're not doing anything—look at the wasted space!" But he read the ad. And when Veeder-Root's back cover advertisement on shift counters was explained, he interpreted, "Oh, so they can tell who's lousing-up."

► Strictly textile items: Betty Grable, the leg girl, has publicly conceded to Jane Russell. India is next to the U. S. in the production of movies. A new machine makes sandwiches automatically. Dale Carnegie has a new book for employees on "Courtesy." If you're interested in fog nozzles, Patent No. 2,612,407 covers a more efficient one. More looms are on birdseye diaper cloth than on gauze diaper cloth. The most widely printed phrase in the English language is "Close Cover Before Striking." —

► And we run it a close second with our "Keep Your Eye on TI."

Want to Write a Book?

". . . . where can I get information on manufacture of sewing thread . . intend to use Peruvian cotton with staple of 1⅜ in. to spin up to 80s . . . also intend to buy counts up to 120s and twist them . . . what would be the best twist multiple for spinning and twisting . . . what are the best methods for the finishing of the yarn . . . . would like to get information on dyeing by vat process. . . ."

Name Withheld
(Foreign)

► On a broad request like this, TI's staff can only scratch the surface and give sources. Anyone wishing to spend the long winter nights answering this letter can pass the data to us and we'll forward.

Will You Appreciate?

". . . . also sell carpet and warp filler [for hand weaving] . . . . our source does not appreciate our business . . . . trying to locate a mill that produces carpet warp and filler who would appreciate business (100,000 lb/yr). . ."

VICE-PRESIDENT

► TI gave small list of sources. Other mills interested and appreciative, write to us and we shall put them in touch with inquirer.

*Well, the new generation may not have heard it.

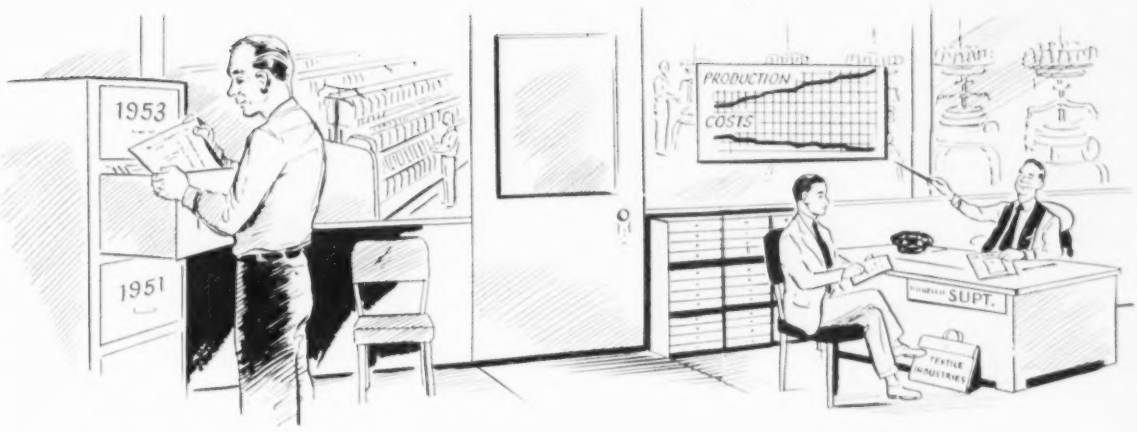
BALANCED DEPENDABILITY . . . You can depend on Textile Spring-Beard Needles for exactly the right combination of strength and resiliency. Scientific controls — automatic and electronic — assure this balanced dependability at every manufacturing step, from the special steel formula, through precision tempering, to final exacting inspection.

Balanced dependability is just one feature of Textile Spring-Beard Needles. It means superior knitting of beautiful fabrics and greater profits from your needle bars.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile
SPRING-BEARD NEEDLES

For Full-Fashioned Knitting
For Tricot Knitting



70 Case History Reports Telling How Mills:

- ***save labor***
- ***reduce waste***
- ***simplify jobs***
- ***improve quality***
- ***increase production***

THIS ISSUE contains a number of short, to-the-point reports of the results mills are getting when using modern equipment and modern production methods. Essentially, the stories tell how mills invest in equipment and then put that equipment to work on a profitable basis. That's the pay-off.

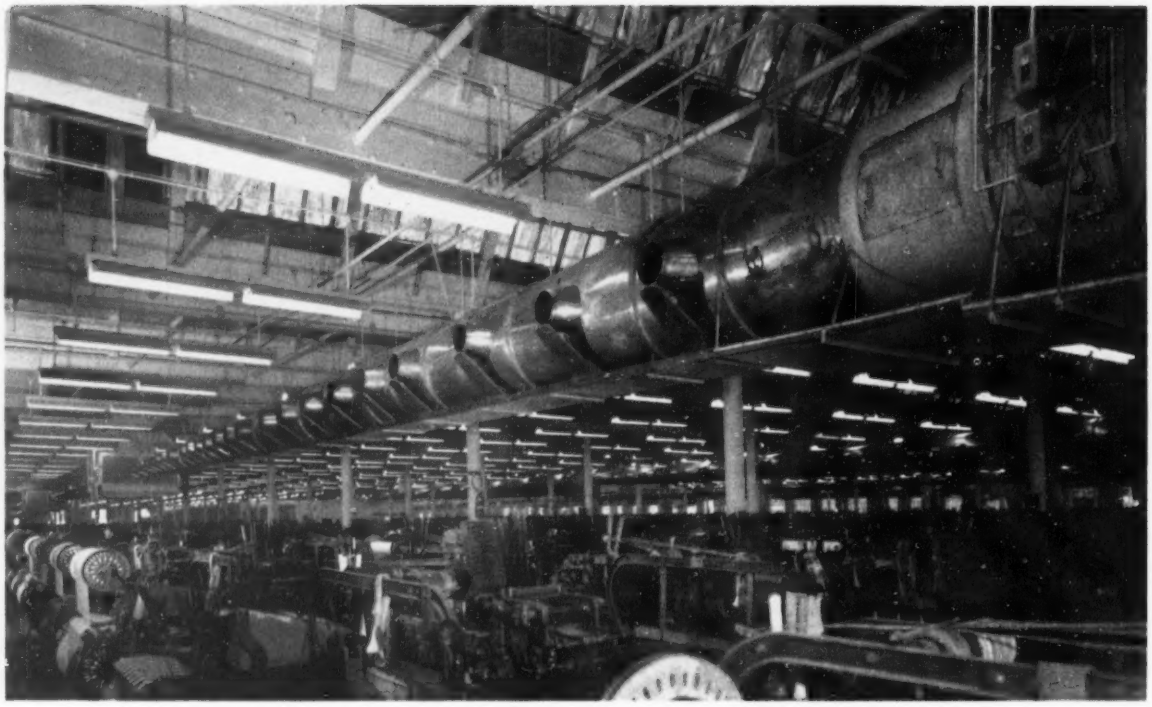
Where permission was secured, the mill is named; in each instance the equipment is identified.

Remember, these equipment performance reports are based on installations which have proved successful. Few mills operate identically, so in reading the reports try to fit the case history to your own plant.

If you desire additional data, write to the editors or to the supplier of the equipment.—Eds.

Please turn page →

CASE HISTORY REPORTS



FLEXIBILITY when sections of room require different amounts of relative humidity.

Operating Costs Less with Unit Air Conditioning in Weaving

case 1

IN A LARGE cotton weave room at Dan River Mills, Danville, Virginia, notable savings in first cost and operating cost were said to be made by selecting a unitary type of air conditioning system.

A "Humiduct" system, manufactured and installed by The Bahnson Company of Winston-Salem, North Carolina, gives uniform humidity, heats, and cools by evaporation. The system provides for the future addition of mechanical cooling by refrigeration.

The use of the "Humiduct" system made possible considerable savings by elimination of the need for apparatus house construction. A major saving in operating horsepower also was made. The flexibility of having twenty complete units for varying requirements in humidity in case certain parts of the room are changed to styles requiring different conditions is considered a distinct advantage in so large a weave room.

Modulating control of evaporating capacity in this system contributes to more even control.

Wool Yarn Twister Downtime Reduced with Automatic Lubrication

case 2

CASCADE Woolen Mill, Oakland, Maine, installed Lincoln CentrOMatic lubricant application systems on 11 Whitin Model E twisters and found that the Lincoln system reduces down-time caused by breakage of the twisted strand of wool, usually a result of dry rings.

Also the system assures positive lubrication of all bearings while machines are operating, reduces lubricant consumption by applying the exact quantity required, eliminates costly rework operations caused by excess grease on rails to soil the work, and improves employee morale.

The systems installed on the Whitin twisters include one Model 1827 air-motor-operated drum pump, time clock controlled, and a circuit of SL-3 injectors serving 120 bearings on each twister simultaneously.

Mercerizer Solves Tough Caustic Removal Problem

case 3

THE SAME caustic a Rhode Island mill uses to make yarn tougher was giving a tough descaling problem. They make up the caustic solution in a 900-gallon tank with a heat exchanger in its base. The caustic was building up on the coils, insulating them against proper heat transfer. Efficiency suffered.

Hand scraping was tried, but it didn't work. Then they tried Oakite Compound No. 32. They flushed out the tank and filled it with water to just above the heat exchanger coil. To this they added enough Oakite Compound No. 32 to make up a 10% solution, and let it soak until descaling action was completed. The tank was then drained and neutralized by a cold water and caustic rinse. Then the tank was drained again, flushed out, and refilled for reuse.

Results were excellent — all caustic deposits removed and heat exchanger restored to complete efficiency. The mill management were so pleased that they decided to use the same material and method to descale the evaporator and condensers used to reclaim the caustic.

LIME SCALE REMOVED down to bare pipe with special compound. No damage to pipe.

Switch Controls Roll Movement on Tricot Warper

case 4

A MILL in South Carolina maintains constant pressure on tricot beams by employing a new switch control arrangement. This mill has made use of a double-pole double-throw Micro precision snap-action switch to control the move back of the presser roll on a tricot warper.

To maintain constant pressure on the beam, the presser roll is backed up in extremely small movements as the yarn builds up on the beam. As the beam builds up, the Micro switch is released, thereby starting a gear motor and driving the presser roll back until the switch is pressed.

Better tricot beams are attributed to this application of Micro snap-action switch. The switches were supplied by the Micro Switch division of Minneapolis-Honeywell Regulator Co.

Light-Weight Measuring Implements Speed Production

case 5

ALUMINUM T-squares, yard sticks, and straight edge rules up to 96 inches in length have been put to use in the plant of F. M. Stevenson Co., Inc., Baltimore, Md., manufacturers of canvas products. The implements were purchased from the Fairgate Rule Co. of Brooklyn, N. Y., and the Stevenson Company has reported exceptional satisfaction with the way employees can work with the stiff, light-weight instruments. The light-weight feature, combined with readily legible markings, speeds production and assures more accurate work. It is no longer necessary to handle other types of measuring instruments.

CASE HISTORY REPORTS

CASE HISTORY REPORTS

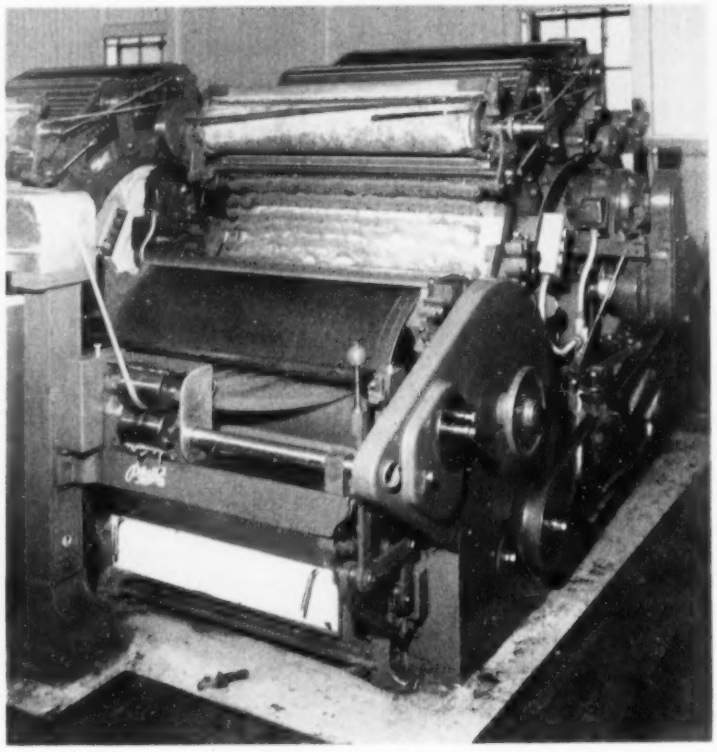
Cotton Mill Finds New Cards Improve Quality at Low Cost

case 6

SWIFT Manufacturing Co., Columbus, Ga., made many tests to determine the quality of carded stock from the viewpoint of neps and linear uniformity on Platt cards. The results have shown that in terms of neps and linear uniformity, the Platt cards are slightly better than equipment already installed. It must be borne in mind, however, that the Platt cards are new; whereas the other equipment is old. In each instance, however, the cards and clothing on them were in good condition.

According to an official of this mill, the design of the Platt card has improved the safety to the operator to a degree never experienced before. This safe design also improves the appearance and makes the card much easier to clean. Cleanliness is not so much a problem with this card because many projecting objects have been eliminated.

Maintenance on the Platt cards has been very low. This mill has not replaced any appreciable number of parts. According to the report, it would require more time if maintenance were on a par with the other cards because the units required per job will be higher on the Platt cards.



FEWER NEPS and cleaning problem reduced.

In conclusion the report stated that the quality is slightly better than on other cards, and the initial investment, which is lower, is an important cost factor.

Package Dyeing Proves Advantageous to Worsted Mill

case 7

EASIER HANDLING of stock, brighter colors, and no downtime for cleaning when changing from dark to light shades are some of the reasons Julius Stursberg, president, The Livingston Worsted Mills, Inc., gives for installing stainless steel Venango yarn dye package machines in his Holyoke, Mass., plant. Of equal importance is the versatility afforded by this equipment as a result of interchangeable spindle carriers and baskets by which means the mill can switch from raw stock dyeing to package dyeing.

The mill first supplemented its five 1000-pound capacity and one 600-pound capacity pressure top dye machines with two 500-pound capacity package dyers for greater flexibility as more and more acrylic and polyester fibers began to find their way into spinning. With package dyers, the spinning department is able to minimize the number of colors running simultaneously, thereby reducing confusion in production flow and safeguarding against color contamination.

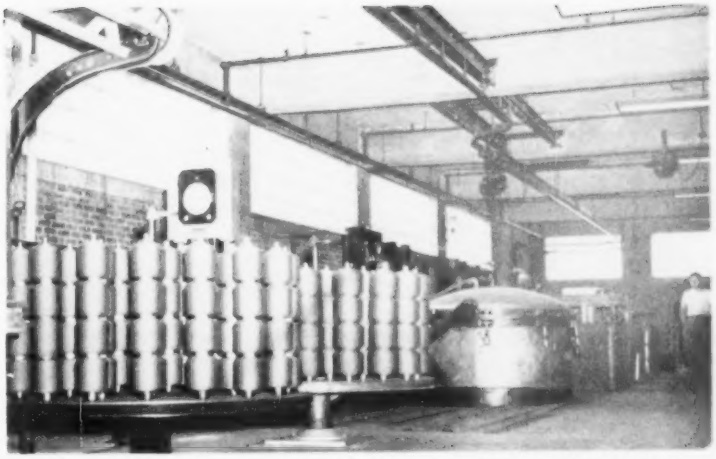
Vicara, Orlon, other synthetics, wool, and various blends have been dyed high quality in the package. Among the dyes used are vats, indigos, chromes, Alizarines, acids, acetates, and premetallized acids, depending upon the fiber being dyed. Worsted yarns are dyed at 204 F and Orlon at 210 F at 35 pounds pressure and with automatic two-way flow of dye liquor at carefully timed intervals.

The machines are equipped with elapsed time temperature controllers which bring the kettles to the boil for the best level dyeing results and also, to maintain the

correct temperature after the desired level is reached. Penetration and level are particularly noteworthy.

One of the package dyers is furnished with 100 spindles each holding four 1¼-pound packages, while the other machine has 32 spindles each holding four 4-pound packages. When operating as stock dyers, the machines will hold about 300 pounds of Orlon and up to 500 pounds of wool, according to bulkiness of the fiber. Dyeing time is generally 3½ to 4½ hours.

Hot air drying of the packages takes five to seven hours. The temperature of hot air used is regulated by the stock being dyed and varies from 220 F down to about 180 F. By dyeing and drying on perforated plastic cylinders, the cost of rewinding is avoided. A carrier and power hoist serve as great savers in time and labor in unloading and loading in dyeing and drying.



NO DOWNTIME FOR CLEANING when changing from dark to light shades at Livingston Worsted.

Machine Wraps 1200 Packages of Sheets and Pillowcases Per Hour

case 8

THE GRACE Bleachery, of The Springs Cotton Mills, Lancaster, S. C., has been using, for about four years, Hayssen automatic textile wrapping machinery to wrap Springmaid sheets and pillow cases in cellophane or Pliofilm, and to wrap Springmaid fabrics in either cellophane or paper. The bleachery now has three machines in operation, and the management states that the fact that they have another machine on order is evidence that they consider them to be a good investment.

The wrapping process is completely automatic. An operator places folded sheets along with a cardboard stiffener on the infeed conveyor, and another operator removes the completely wrapped and sealed package from the discharge conveyor. The machine feeds the wrapping material, cuts it to proper length, and by means of an electric eye, positions the printed material so that it always appears at the desired place on the package.

Packaging is a complicated operation, and the machine, itself, requires a trained operator to keep it working smoothly and efficiently. This automatic method wastes more paper than hand wrapping, for if the cloth is not folded just right and the stiffener properly placed, the wrap will not be correct, and the cloth must be run through again. Training of the feed operator eliminates much of this waste of wrapping paper. Also, most hand wrapping is done without using stiffeners, and the cost of this cardboard must be

WRAPS 1200 PACKAGES per hour at Springs.

CASE HISTORY REPORTS

added to the operating cost.

On the other hand, each of the machines at Springs is wrapping about 1200 packages per hour.

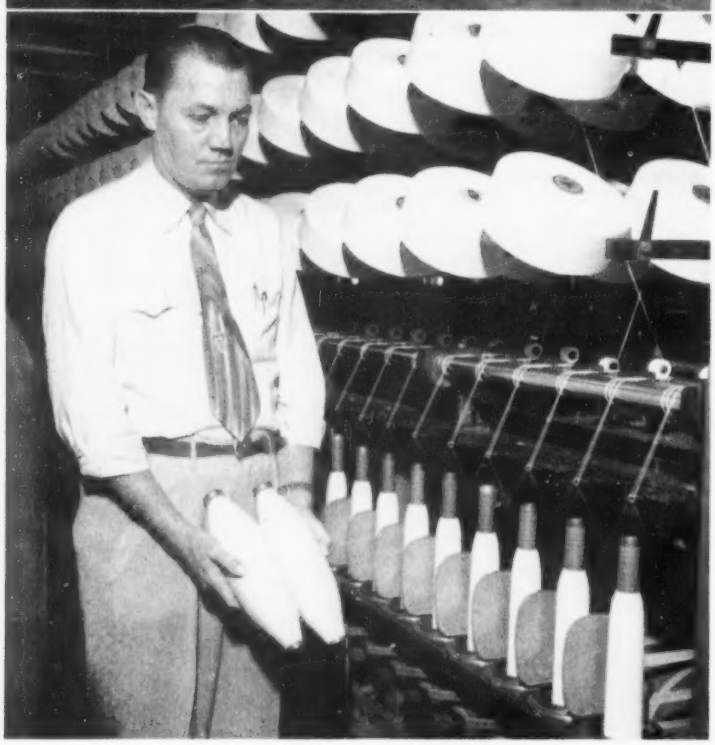
The time required to change from one size package to another runs from 45 to 15 minutes, depending upon the experience and skill of the operator.

The limiting factor in operating speed at Springs is the sealing rate. If the heater would seal the packages faster, it is likely that the speed of 1200 packages per hour could be considerably increased.

Experience with these machines indicates that for volume packaging operations they are well worth the investment and give little mechanical trouble after the operators become familiar with them. The quality of the packaging job is excellent, and there is no doubt that this attractive wrapping adds considerably to the eye appeal of Springmaid products on retail shelves.

Higher Speeds Possible by Twisting on Paper Tubes

case 9



UPS TWISTER PRODUCTION. Paper tubes are used. Creels accommodate both B-C cheeses and standard cones.

AT DUNSON Mills, LaGrange, Ga., twelve, 228-spindle Saco-Lowell twisters produce one-pound packages of yarn at 6500 rpm spindle speed.

A minimum of 50% increase in lb per hour production has been noted. On old type frame (5″ gauge, 4″ ring, large diameter whorl) traveler speed was too high at production figure of new frame. The objective in building the new frames as they are was to have long traverse, to maintain same package size, and a smaller diameter ring to permit increased spindle speed. The new twisters use a spinning frame chassis.

3½-inch rings are employed, and the traverse is 11 inches on paper tubes supplied by the American Paper Tube Co. as original equipment on the new frames. These frames are 5-inch gauge, have 1⅛″ whorl, and they are equipped with centralized lubrication.

No. 6 New Era spindles are equipped with knee brake, and the two-roll Bachman system is employed. Ball bearing rolls are chrome plated and have totally enclosed stand. L. D. Sayers, superintendent, wrote specifications for the frame which may be considered his idea. Overend type creels are used, and either standard

cones or B-C cheeses can be used. Peak power load on the frame is 18-20 hp.

Spindles were ordered to be fitted with paper tubes driven from the top because it was thought this would permit higher spindle speed without vibration. In other words these new twisters are similar to a spinning frame arrangement, except for package size. The package size is the same as with conventional twister with 4-inch ring, except that production is much higher.

Hosiery Mill Solves Problem of Rust Stains on Nylons

case 10

AN Alabama hosiery mill became alarmed at the rate of rejects caused by brown rust stains on the nylon stockings, and traced the stains to rust in the treated water used in their sizing process, and the rust, in turn, to the water-softening tank.

Removing all the conditioner and pebbles from the tank, they flushed it out with clear water, then filled the tank with water, charged it with Oakite Composition No. 24, 4 ounces to the gallon, and steam-heated the resulting solution to 180 F.

After the tank was thoroughly cleaned and rinsed with fresh water, it was charged with a 20% solution of Oakite Compound No. 32 to remove rust and scale deposits. The tank was again rinsed, and then neutralized with an alkaline solution. The conditioner and pebbles were returned to the tank, and it was put back into operation.

Results: rejects completely eliminated, and no trace of rust found in the sizing water.

40% Savings Effected in Application of Adhesive to Carpet Backing

case 11

PIERCE & Company, Los Angeles, Cal., has managed to save up to 40% in terms of labor and material required to apply latex and other adhesives to the backs of carpeting material. The return on the investment in a machine to do the coating operation is figured at approximately 20%. Considerable handling is eliminated, and two men formerly occupied in spraying operations have been moved to other jobs.

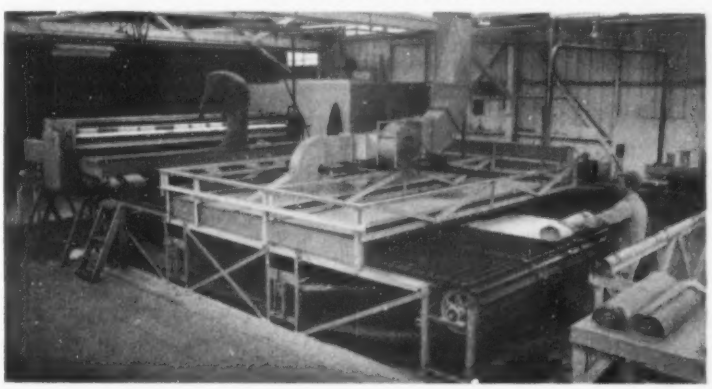
A roller coating machine 15 feet long was installed to apply the adhesives to carpet backings. With this equipment it is possible to run carpeting in drop rug size up to 15 feet in width. The arrangement of the rolls and adhesive reservoirs permits control of the coating to any required thickness. L. R. Wallace and Co., Los Angeles, supplied the machine.

After the liquid adhesive is applied to the carpeting, the moisture must be evaporated before the carpeting can be rolled or otherwise handled. It is important to have the right amount of heat to dry the adhesive without damaging the cotton. A Merco infra red heat tube is employed to do the job properly at Pierce & Co. A battery of glass tube-enclosed heating elements is placed in parabolic reflectors to furnish uniform heat and in the right amount.

The glass enclosure assures safety in the event that the material comes in contact with the heating elements, and it also permits easy cleaning. The safety feature also permits the heaters to be close to the product for high efficiency in transferring radiant heat without hot spots. Less wattage is required to do the job than with other types of heaters. The units were supplied by Corona Manufacturing Corp.

Even distribution of heat is produced by the reflectors which permit the heating units to be placed parallel with the conveyor which is 13 feet wide and moves at a speed of six feet per minute. The heating units are about 5½ inches above the product, and no energy is wasted in light; the unit emits only a faint glow. Control of the heating units is by switches which may be turned on or off as required by the different widths of carpeting going through the machine.

40% SAVED in coating operation by this method.



CASE HISTORY REPORTS

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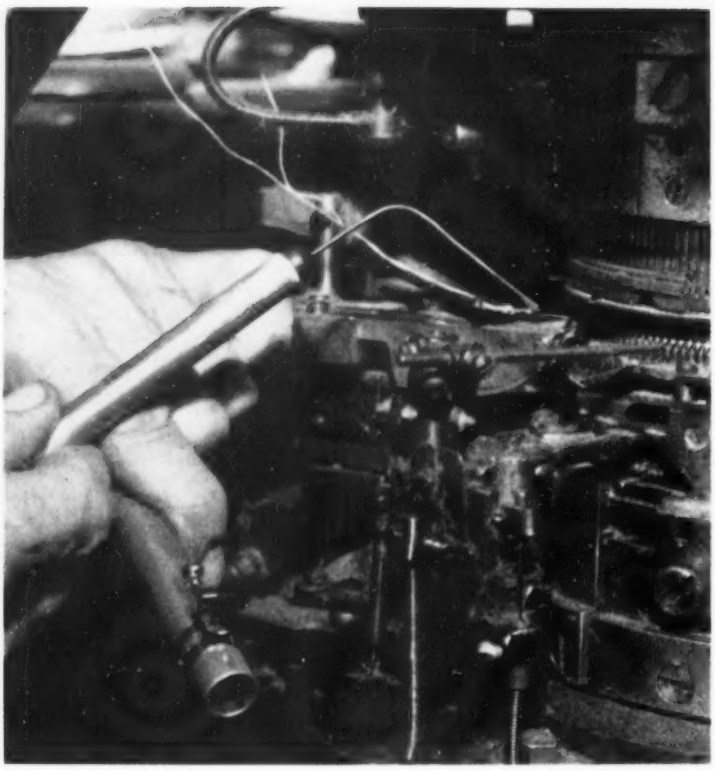


HE FETCHES metal parts with handy magnet.

Magnetic Tool Has Many Uses

case 12

A SMALL but powerful magnet enclosed in a case about the size of a fountain pen is a handy tool to have in a machine shop or on a workbench. The magnet is equipped with a soft wire extension which can be extended about three inches. The entire tool comes in a protective brass tube. The wire extension is soft, thereby permitting bends to various angles as required to gain access to hard-to-get-at places. The tool is especially useful for cleaning out steel or iron chips in small holes or large holes.

Both ends of the tool have been found useful in retrieving small screws, needles, sinkers, and other small parts which have accidentally been dropped into small crevices on knitting machines. The accompanying photograph shows the tool being used to remove broken slider butts from a cam way on a Komet knitting machine. Also shown is the tool and case.

The Magnetool is a strong magnet and may be used in many ways, and the wire extension may probe into places too small for a screwdriver or other tool which was not made for the same purpose. The brass tube serves as a protective case to prevent other tools in the toolbox from becoming magnetized.

The Model 1 Chipmaster Magnetool shown in the illustration is made by The Multifinish Manufacturing Co.

Wool "Resting" Process Speeded by Conditioner Control

case 13

SAVING weeks of processing time, a number of southern textile mills have adopted a new use for Foxboro-controlled yarn conditioners. The new method is based on the fact that a period of rest for the fibers after blending and carding, but before spinning, will improve quality and reduce fiber breakage. However, instead of the 3 to 4 weeks necessary for best results at room temperatures, these mills give the carded fibers a fast-rest with steam in only a few minutes under carefully controlled elevated temperature and humidity.

Control may be automatic or semi-automatic. Conditioners under automatic control use a wet and dry bulb humidity controller, made by Foxboro.

The operator initiates the automatic fast-rest cycle by simply pushing the "start" button. The system closes a damper to recirculate air within the conditioner; opens the steam valves to the heating coil and steam spray lines; and starts a blower. When the wet bulb control point is reached, the steaming timer starts. At the end of the timed period, the heating valves close and the damper admits cool air into the conditioner. The cooling timer then operates, after which the blower stops, the end-of-cycle signal light is turned on, and the fast-rest process is completed.

Treatment reduces kinking and twisting, and relaxes the fibers for easy handling. Production benefits include: improved quality, less fiber breakage, decreased treatment time, and reduced costs.

Nylon Processing Plant Saves Money by Plating Winder Parts

case 14

ONE OF the largest nylon processing plants in the South recently reported that it had been able to reduce the loss of inspection time by a program which has been put into use. For some time the plant has been using Walhard industrial hard chromium plating on the nylon sizing wires as well as on other winder parts. This has made it possible to have a standard regulated inspection without the necessity of irregular inspections which are time-wasters.

This same company has also reported a great saving in the program for the replating of chromium plated parts. Formerly these parts were discarded after use. Now this mill has a regular program of replating these parts several times and reports important savings on replacement parts as a result.

The hard chromium plating was done by Walton & Lonsbury.

New Quill Trucks Hold More Than Old Ones: Save Steps

case 15

ELBERTON Mills, division of United Merchants and Manufacturers, Inc., have placed new quill trucks in service to solve a problem which was revealed in a work simplification program.

The old method of transporting quills was to push a truck from loom to loom, the truck being specially adapted for the job of holding four quill cans. The empty quills were dumped from the loom can into the truck can, the loom can then being replaced. It didn't take long to fill up the four cans, and soon the carrier would be on his way back to the quilling department to start cleaning the quills he had picked up.

One of the factors complicating the problem was aisle width. The truck had to be small enough to go through the aisles, but large enough to pick up a great number of quills.

The new truck seems to be the answer to the problem. It is made of light aluminum with roller bearing wheels. It measures 46 inches by 15 inches by 29 inches and contains 20,000 cubic inches of space. The old truck had only 8,832 cubic inches of space, so the new truck holds about 2½ times as much as the old one. The operator shown in the accompanying photo says the new truck saves about "100 miles" of walking every day.

HE WALKS LESS since the mill gave him this specially designed quill truck. It holds twice as much.

The trucks were made to the mill's specifications by the Fisher Manufacturing Co.

More Uniform Warps by Using Control on Rayon Type Slashers

case 16

SUCCESSFUL application of an electronic moisture-measuring device on rayon, acetate and synthetic yarn slashers has been reported by several mill operators. Made by the Industrial Division of Minneapolis-Honeywell Regulator Company, the device is known as a multi-range Moist-O-Graph.

The device increases production from a slasher by as much as 15 per cent, effecting savings in one year equal to the cost of the installation. Chief benefit from use of the moisture-measuring control is in making more uniform warps for the looms.

In addition to keeping moisture constant, the device also serves as monitor for the complete slashing operation. It detects variations in cylinder and size box temperatures and corrects for any variation. For example, if cylinder temperatures are too high or too low the Moist-O-Graph will cause the slasher to change speed, alerting the operator.

CASE HISTORY REPORTS

Card System Assures Efficient Dyehouse Operation

case 17

A LARGE dyehouse, capable of undertaking almost any conceivable type of cotton piece-dyeing and catering to a range of customers whose orders run from one piece to several hundred thousand yards, presents a challenging planning and scheduling problem. Here is the way Magog Print Works, finishing plant of Dominion Textile Co., Ltd., at Magog, Quebec, schedules dyehouse operations to meet delivery promises and to maintain an even, balanced work load in the mills.

The procedures outlined here form one phase of Dominion Textile's comprehensive production control system, designed and installed by Werner Textile Consultants of New York. This planning system relies in part on IBM punch-card equipment to handle the large volume of customer orders and the extensive range of fabrics and patterns processed. The accompanying chart illustrates the planning operations, step by step, from receipt of customer's order to its inclusion in the dyehouse weekly schedule.

All customer order cards are tabulated to show the yardage required on each pattern for delivery in each month of the coming quarter, and also to determine total grey cloth requirements. Representatives of the merchandising and production planning department review the order and grey cloth summary in conjunction with sales forecast and manufacturing capacities. From these data the merchandisers write manufacturing orders, each of which authorizes the mill to process a specific quantity of cloth of a given style and color.

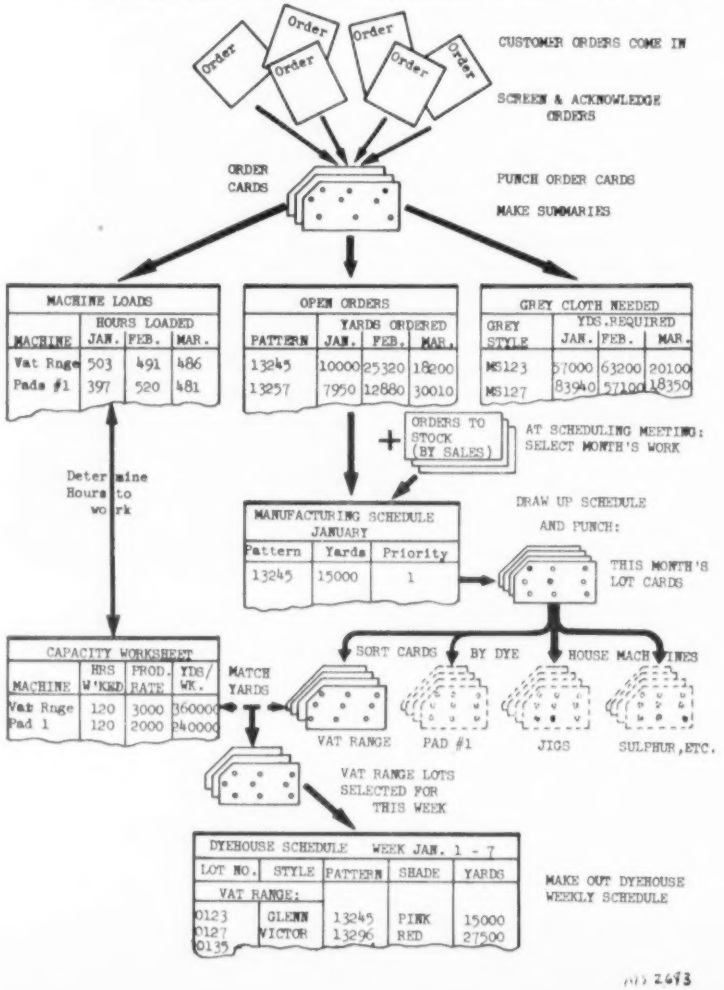
A lot card is then punched for each manufacturing order. A summary of these lot cards reveals the total production requirements of the mill, including amount of grey cloth required, as well as the machine hour load on the various preparatory and finishing operations.

The planning department and the mill supervisors review the total work load and determine the hours or shifts to be run in each department for the next several weeks. The selected working hours are then entered on a loading chart, listing each key production process.

The planning department then "loads" each lot card for the various dyehouse machines, according to delivery requirements, but consistent with the capacity of each machine. Loading the various lots to provide an efficient work program is aided by the pattern numbering system in use. Pattern numbers are coded to indicate, at a glance, the type of dye (vat, direct, sulphur, etc.), and the exact shade. Thus the planner can lay out the dyehouse work program for a minimum number of shade changes and schedule the sequence of changes from the lightest to the darkest shades for minimum washing out of dye becks.

The selected lot cards for each week are listed in the form of a weekly dyeing schedule showing lot number, style, pattern, shade and yardage. This schedule is distributed to all mill departments before the beginning of each week. The bleachhouse, dyehouse, and finishing room overseers have an advance view of their week's

DYEHOUSE SCHEDULING. From customer's order to production.


Order
CUSTOMER ORDERS COME IN
SCREEN & ACKNOWLEDGE ORDERS
ORDER CARDS
PUNCH ORDER CARDS
MAKE SUMMARIES
MACHINE LOADS
MACHINE | HOURS LOADED JAN. | FEB. | MAR.
Vat Rnge 503 491 486
Pads #1 397 520 481
OPEN ORDERS
PATTERN | YARDS ORDERED JAN. | FEB. | MAR.
13245 10000 25320 18200
13257 7950 12880 30010
GREY CLOTH NEEDED
GREY STYLE | YDS.REQUIRED JAN. | FEB. | MAR.
MS123 57000 63200 20100
MS127 83940 57100 18350
ORDERS TO STOCK (BY SALES)
AT SCHEDULING MEETING: SELECT MONTH'S WORK
Determine Hours to work
MANUFACTURING SCHEDULE JANUARY
Pattern | Yards | Priority
13245 15000 1
DRAW UP SCHEDULE AND PUNCH:
THIS MONTH'S LOT CARDS
CAPACITY WORKSHEET
MACHINE | HRS W'KED | PROD. RATE | YDS/WK.
Vat Rnge 120 3000 360000
Pad 1 120 2000 240000
MATCH YARDS
SORT CARDS BY DYE HOUSE MACHINES
VAT RANGE
PAD #1
JIGS
SULPHUR, ETC.
VAT RANGE LOTS SELECTED FOR THIS WEEK
DYEHOUSE SCHEDULE WEEK JAN. 1 - 7
LOT NO. | STYLE | PATTERN | SHADE | YARDS
VAT RANGE:
0123 GLENN 13245 PINK 15000
0127 VICTOR 13296 RED 27500
0135
MAKE OUT DYEHOUSE WEEKLY SCHEDULE

work and a clear cut program to follow in doing the job.

All customer order cards are tabulated to show the yardage required on each pattern for delivery in each month of the coming quarter, and also to determine total grey cloth requirements. Representatives of the merchandising and production planning department review the order and grey cloth summary in conjunction with sales forecast and manufacturing capacities. From these data the merchandisers write manufacturing orders, each of which authorizes the mill to process a lot of cloth of a given style, shade, and quantity.

Dominion Textile's dyehouse scheduling system helps the company to:

Avoid acceptance of orders beyond mill's capacity to produce.

Direct sales efforts to utilize spare machine capacity.

Insure dyeing of goods in time to meet promised delivery.

Forecast accurately the shifts required for each department.

Balance the weekly work load on the dyehouse.

Reduce downtime by eliminating waiting for cloth and unnecessary cleaning of equipment.

In practical terms these advantages mean smoother, more efficient operations for Magog Print Works and better service to its customers.

New Frames Cut Spinning Costs 52.2%

case 18

ONE MILL has reported substantial savings in labor and increased production through use of Saco-Lowell SG-1 spinning as compared to conventional spinning. Working three shifts of 40 hours, the man hours per week required for the SG-1 spinning was 640; for conventional spinning 1230 hours. Production per week was 15,774 lb on SG-1; 14,340 on conventional. The cost per pound was $.0505 for SG-1; $.1056 for conventional.

Savings per pound amounted to $.0551, and the overall reduction in cost was 52.2%, according to the records in this instance.

Carloading Reduced from 28 to 1.3 Man-Hours

case 19

THE USE of power industrial trucks by the American Finishing Co., Memphis, Tenn., has resulted in several major materials handling economies, both in the storage of material and in the carloading operations.

Eight to ten million yards of finished cloth are handled each month, plus an assortment of chemicals, starches, dyes, and paper used in the plant process. Six trucks manufactured by Elwell-Parker are kept in operation 24 hours per day to maintain production. On week-ends the engineering department uses them for maintenance and repair work on machinery.

The following examples are typical of the materials handling savings brought about by the use of these trucks:

To load a box car with bales of finished cloth, eight men with hand trucks worked 3½ hours. Using a truck, the operator and one helper now load a box car in 40 minutes—only 5% of the

HE AND TRUCK do work of many men, but he must be employed five years before he gets the job. Operator maintains truck.

CASE HISTORY REPORTS

previous man-hour requirements.

The trucks have also made possible much better utilization of storage space. Previously, rolls of cotton cloth were stacked by hand horizontally on a low platform. Now, using a truck and palletized loads, fifty-four rolls can be stacked in the same floor space—an increase of 250%.

It was found that similar savings were realized on practically every plant truck operation.

A particularly interesting phase of this operation is the driver maintenance program. Each driver must be employed by the company five years before he is eligible for the position of truck operator. Each driver must be responsible for the upkeep and condition of his truck. The one having the lowest maintenance record gets the newest and best equipment. If a driver has an accident, he is "grounded" for a period commensurate with the seriousness of the accident.

Wool Top and Piece Goods Production Higher with Uniform Process Water

case 20

NOT long ago, the Empire Worsted Mills, Jamestown, N. Y., was faced with a very serious problem. It was questionable whether the company could continue to operate its cloth scouring facilities and top and piece dyeing equipment unless something was done at once. Their chief trouble was the water supply.

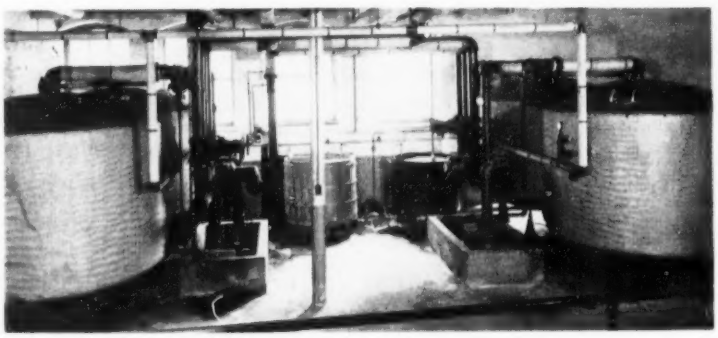
The company's source of raw water, the Chadakoin Creek, was becoming more polluted every year and large amounts of algae were present. Turbidity was high —up to 25 parts per million and the color, due to stream pollution, ranged up to 60 ppm.

After a study of the water problems, The Permutit Company recommended and subsequently installed four 96-inch-diameter sand and gravel pressure filters, the necessary chemical feeders for alum, alkali, and chlorine solutions. This was followed with two 90-inch-diameter zeolite water softeners, filled with the new high capacity cation exchange resin, Permutit Q.

This installation was completed late in the fall of 1950, and most gratifying results have been obtained. Due to the control of the pH of the water, as well as its reduction to zero hardness, Empire's dyeing of wool top and piece goods has greatly improved. Better evenness and penetration in the dyeing resulted. Production has increased in the dyeing department in that lots seldom have to be re-run due to off-shades after the first dyeing operation.

Savings derived from the water filtering and water softening equipment were considerable. In fact, the installation has more than paid for itself. Approximately $12,000 yearly are saved by reduction in the use of dyeing chemicals and large quantities of soap; elimination of detergents and other softening compounds; and elimination of costly boiler tube scaling with the resultant need for acid cleaning of the boilers.

After two years of constant operation on a water supply which has become increasingly more polluted, the apparatus continues to save money and to increase high quality production for the Empire Worsted Mills.



DYEING OKEH NOW since Empire purifies water.

Oil-Fired Gas Dryer Increases Tenter Production, Cuts Fuel Costs

case 21

A LARGE South American textile mill which makes all kinds of fabrics and does its own finishing has been well pleased with a dryer installation made recently by Process Heating, Inc. They have ordered another installation for a new tenter frame.

The problem which led to the existing installation was that no city gas was available and bottled gas was very expensive, so the company had to depend on steam for drying. Moreover, much of the labor was neither skilled nor efficient, and the finished quality did not satisfy the management. Some of the heavier materials which were completely saturated had to be passed through a steam heated loop dryer, over a set of six dry cans, and then three times very slowly over a tenter frame loaded with steam coils.

Costs were high, production low, excessive handling soiled the material, and lack of controls made the "hand" uncertain.

The steam coils under the tenter frame were replaced by infrared radiant gas burners. Light fuel oil was converted to gas for the burners by atomizing and vaporizing with preheated air in proper proportion for most efficient combustion. Controls were installed for completely safe and fully automatic operation. The only adjustment needed is to set the burners for the selected speed of the tenter frame which depends on the kind of fabric, its weight, and moisture content.

With this installation, only one pass over the tenter frame is needed, and the dry box and steam cans have been eliminated from the drying operation. Production was increased well over 100 per cent, and fuel bills were cut drastically. Moreover, eliminating much of the handling keeps the material clean. Automatic control of the process gives a fine "hand" consistently. Due to the rugged construction of Process Heating's burners and the simplicity of the controls, there has been practically no maintenance.

Now that this progressive mill has found a practical way of securing higher controlled temperatures, it can also proceed with its plans for including nylon setting and resin curing in its operations.

Dye Plant Maintenance Reduced by Using Stainless Steel Valves

case 22

AT PHOENIX Dye Works, Chicago, Ill., valves and cocks in acid dye line to package dye machines gave much trouble with leakage and sticking, requiring excessive maintenance and lasting only one to two months at best. The valves were regularly in contact with varying acid dye solutions at temperatures ranging from 50 to 210 F. The valves were operated about 100 times daily, often with disc in throttling position.

Since installing No. 18850 all 18-8 Mo stainless steel plug gate valves made by the Crane Co., Phoenix reports no leakage through valve, no sign of corrosion, no maintenance expense, and unusually easy operation.

Tray Dryer Saves 10c Per Dozen in Finishing Ladies' Hose

case 23

A TRAY dryer for ladies' all nylon hosiery, in operation at Berkshire Knitting Mills, Reading, Pa., and developed by Proctor & Schwartz, Inc., Philadelphia, Pa., is chalking up new high production records—at new low costs of operation.

This tray dryer, which is used for finishing hosiery after dyeing, saves two-thirds of floor space. The tray dryer has a productivity of 40 to 50 dozen pairs per hour, about three to four times the previous output per operator.

Stockings are handled far less than when final boarding is done. This largely eliminates pull threads and imperfect work, thus making a substantial contribution to the profitable operation of the finishing department. The equipment does not require a skilled operator. The unit has produced a saving of 8 to 10 cents per dozen.

SHE HANDLES GOODS LESS when using this tray dryer; her production is increased. Dryer saves mill 8 to 10 cents per dozen.

CASE HISTORY REPORTS

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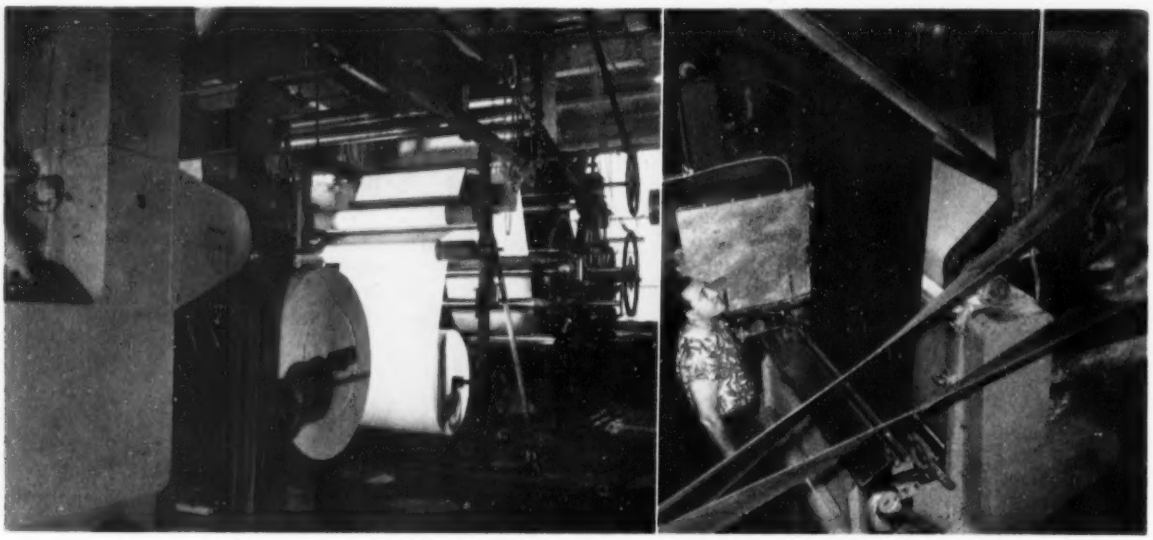
giving a good return on the investment.

The following procedure is recommended: Hosiery that has been preboarded should be removed from the preboarding machine, carefully folded and placed in a dye bag. There should be twelve stockings to a fold in 15 denier and 6 stockings to a fold in 30 denier. The stockings are then placed in the dye bag with two dozen pairs to a bag and the welts toward the outside of the bag. The end of the bag is then tied snugly. This is now ready for the dyeing machine. Hosiery is dyed in the bag and extracted for a period of about three to five minutes.

The bags of dyed stockings are delivered to the operator of the tray dryer, who removes them from the bag, straightens out each half dozen lot, and lays it on the tray of the dryer.

After unloading and reloading each tray, there is time for the operator to remove additional stockings from the dye bags and prepare them for placing on trays.

The buzzing of a timing device informs the operator when to push in the loaded tray and pull out the other tray for unloading. Stockings in the dryer are subjected to a strong circulation of warm air (about 180 F) which is forced down through them and dries them in about three minutes.



NO BACK GREYS used in this printing operation. Seconds from seam marks eliminated.

Printing without Back Greys: Better Production and Quality

case 24

THE PROBLEM of maintaining its high quality standards while increasing production led officials of Fruit of the Loom, Pontiac (R. I.) Division, into a comprehensive survey of all operating procedures and production equipment. As a result, evaluation of every operation in each division of the plant was simplified; costlier practices were pin-pointed, and effects on quality analyzed.

The survey showed that total costs for back greys, handling, and processing approached ½¢ per yard of printed goods, which is $5,000 per million, making it a major expense item. The process for printing without back greys, developed by Dewey and Almy Chemical Company, Cambridge, Mass., was adopted for testing in two printing ranges.

At the end of the trial period, savings in back greys amounted to better than 80%, according to Earl Clifford, manager of the plant, while quality was maintained and production increased in the two test ranges. Four are now equipped, and plans are completed to equip all ranges in the plant.

In addition to savings outlined, there is a definite increase in quality due to the elimination of seconds and cutouts caused by seam marks from back greys. These are entirely eliminated by the use of Dewey and Almy wash blankets and are not considered in the figures given.

Much of the success may be credited to the Darex Model ND washer, specifically designed to maintain clean printing surfaces of embossed blankets when the new types of high crock-resistant, water-in-oil pigment colors are used. Mr. Clifford stated that when all ranges are equipped, a savings of 5.83% of the total cost of printed production is expected with an overall production increase of above 15%.

Cotton Cleaner Takes Out More Waste, Less Spinnable Fiber

case 25

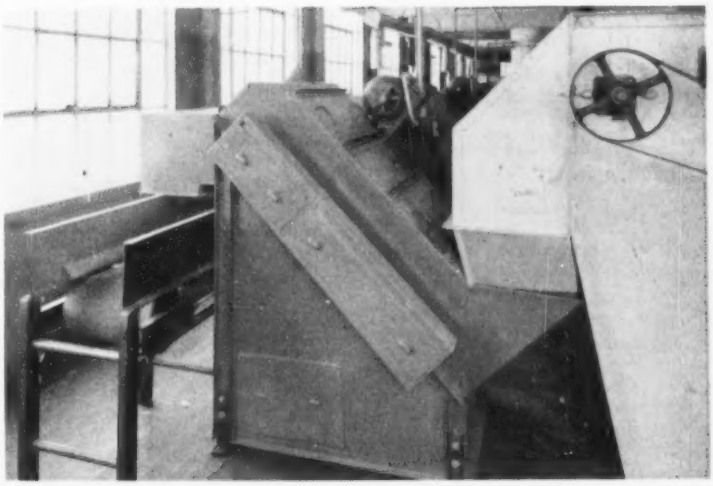
NINE Super Junior cleaners have been in operation in West Boylston Mfg. Co. of Alabama for nearly two years. These cleaners have given satisfactory results with no need for maintenance whatsoever.

The opening line consists of 9 blending feeders, each of which feeds a Super Junior. The stock passes from the Super Junior onto a feed table, through a Gyrator section, into two blending feeders, Aldrich openers, Superior cleaners, and on to the picker room.

The Super Junior takes out .4 of 1% waste. This is heavy waste such as large leaf, pepper trash, dirt, and motes. Practically no spinnable fibers are taken out. The Super Junior removes a greater amount of large leaf particles, preventing them from being broken into pepper trash at the beater sections on down the line.

In addition to removing waste, these machines also open the stock well, allowing the subsequent cleaning processes to do a more thorough job of cleaning. There was no increase of neps in the web with the installation of the Super Juniors.

These small machines, made by Gastonia Textile Machinery Co., are doing a good job, and it is apparent the principle of opening and cleaning used is not harmful to the cotton fiber, according to experience at this mill.



REMOVES TRASH but hardly any spinnable fiber.

Ceiling Treatment Gives Quiet Working Conditions

case 26

A UNIQUE ceiling treatment makes a fourfold contribution to the modern, functional office interiors of the new Stevens Building, New York City headquarters of J. P. Stevens & Co., Inc.

Fiberglas Sonofaced Tile, a new product of Owens-Corning Fiberglas Corporation, covers a total of 110,000 square feet of the ceiling area throughout the building.

Through efficient sound-absorption, the Sonofaced Tile helps create quiet working conditions for the firm's employees.

The tile consists of a plastic film stretched over 12" by 12" squares of Fiberglas acoustical board. Sound is absorbed by diaphragmatic action, the film serving as a vibrating drumhead to transmit sound waves into millions of interstices in the Fiberglas board.

Because of the smooth film facing's imperviousness to dirt penetration, it is exceptionally easy to cleanse and never needs painting or any other special finishing.

QUIET OFFICE at Stevens with ceiling insulation.

CASE HISTORY REPORTS

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Sewer Screen Brush Recovers 1000 lb Wool Per Week

case 27

A LARGE quantity of salable wool which had previously "gone down the drain" is now being recovered by a leading eastern producer of carbonized and scoured wools.

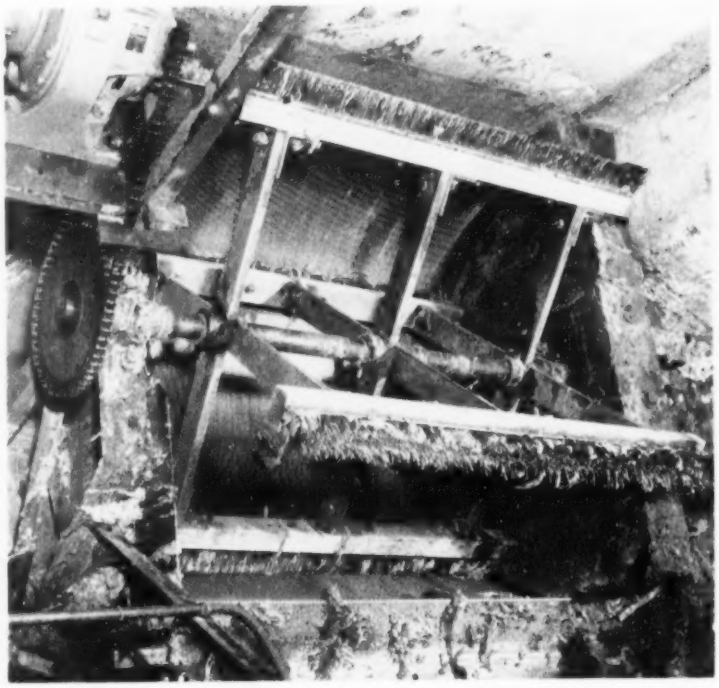
This Philadelphia concern led sewer lines from the scouring and carbonizing machines to a shed-covered discharge pit outside the main buildings. Approximately 20% of the wool swept into the waste water pipes was caught on iron bars at the sewer exit and removed by hand.

The inefficient and expensive procedure was eliminated when Fullergript brush strips were mounted on a company-designed strainer unit in the discharge pit.

At the bottom of the pit, a semi-cylindrical, fine-mesh screen was placed to receive the sewer pipe discharge. A brushing frame revolves above the screen. Four brushing arms, parallel to the screen face are supported by spindles extending from a center shaft, chain driven by a motor.

As the frame revolves, durable fiber filaments anchored in corrosion resistant metal backing sweep the entire curve of the screen. All stray wool is swept up and over the edge of the screening onto conveyors which carry it to a waiting bin truck.

By this method, one thousand pounds of wool are being recovered each week—an increase of 80% in efficiency and profit for this particular operation.



KEEPS WOOL OUT OF SEWER where it would go if this brush did not operate (1000 lb/wk saved).

Variable Speed Motors Increase Production 25-30%

case 28

JANTZEN Knitting Mills, Inc., has enjoyed success with Sterling electric power drives and reports some of the oustanding features of the Sterling Speed-Trol motors as follows: (1) Increased production 25-30%; (2) infinite variation—machines start slow, then speed up; (3) versatility—wider variety of spinning can be done; (4) low maintenance cost; (5) universal mounting—motor mounted on top of machine; (6) long belt life.

Several years ago, Jantzen installed several Speed-Trol variable speed motors on Prince-Smith & Stells, Ltd. spinning frames and since that time have installed several more on spinning frames and various other machines. Each motor was mounted in and as an integral part of the machine, thus saving floor space.

During this time, maintenance on the motors has been hardly more than an occasional lubrication.

Mill Slashes Bale Handling Time 87% With Fork Truck

case 29

THE Allentown, Pennsylvania, plant of the Lehigh Spinning Company has slashed the time required to transport imported jute in bales by 87 per cent. Using a Mercury Yak truck with special bale-handling attachment, transferring the mill's daily production

requirement of 120 bales from warehouse to operating floor requires only two hours of the fork truck's operating day. This same number of bales previously required the services of two men for an entire day.

This company receives jute, imported from Pakistan and India, in 400-lb bales and stores the bales in a warehouse until the plant can process the raw material. The jute is picked up in unit loads of four bales, and the truck transports the bales 125 feet over a 20%-grade to the floor of the mill where bales are broken up.

SPECIAL DEVICE permits handling four bales.

Synthetics Mill Finds Solution to Unique Air Conditioning Problem

case 30

INCREASING the weaving capacity of the Cone Mills Revolution Rayon Plant in Greensboro, N. C., brought forth several problems involving low head room which required careful consideration in providing conditioned air. Expansion was essentially an extension of operations into the basement of a building where all processing had been on the main floor level. Refrigeration for chilled water was already available on the main floor level.

The basement addition was designed for refrigeration in summer and heating in winter to maintain conditions of 80-85 F dry bulb and 55-65 degrees relative humidity the year around to provide suitable control for processing synthetics. The air conditioning problem was solved as follows:

Apparatus room wall construction incorporates 8-in. common brick, 2-in. foam glass, and a glazed tile interior surface. Concrete floor was poured on stone fill with suitable floor drain and overflow connections. Provisions were made for ample clearance around all apparatus for inspection and maintenance.

Chilled water for cooling is taken from the existing refrigerating service, and chilled water lines (cork insulated) are brought into the intake side of the washer room. All connections and control valves are in easily accessible locations. When on chilled water service, overflow from the washer is returned to the cooling system by an Aurora vertical pump. On evaporative cooling, filtered make-up water is added through the recirculating system of the main air conditioning system so treatment can be provided for all circulating water as required.

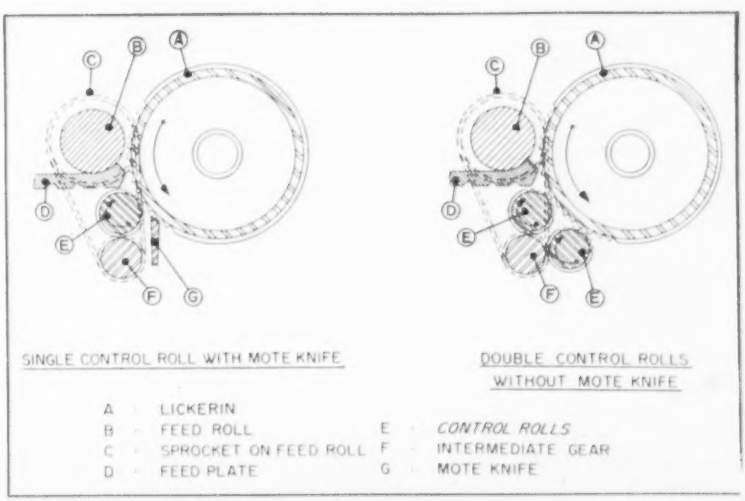
The outside air and return air dampers are of opposed action type, controlled by a single air motor with mechanical connection between the recirculating and inlet dampers. The air conditioning facilities were designed by J. C. Harrison, Spartanburg, S. C., and Buensod-Stacey, Inc., Charlotte, N. C., handled the installation.

Card Sliver Variation Reduced 50% with Control Rolls

case 31

IN A MILL running a blend of 50% viscose-50% acetate, the variation in card sliver was reduced from 14% to 7% by installing Saco-Lowell control rolls on the cards. In addition to reducing the variation, the web was exceptionally clear.

Control rolls represent one of the latest developments for improving the economy and efficiency of the card. The control rolls are built in two assemblies: (1) The single roll with mote knife for


SINGLE CONTROL ROLL WITH MOTE KNIFE
DOUBLE CONTROL ROLLS WITHOUT MOTE KNIFE
A - LICKERIN
B - FEED ROLL
C - SPROCKET ON FEED ROLL
D - FEED PLATE
E - CONTROL ROLLS
F - INTERMEDIATE GEAR
G - MOTE KNIFE

SLIVER UNIFORMITY improved at card with control roll, which breaks up lumps of fibers.

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cotton; (2) the double rolls for synthetic fibers.

The use of these rolls is said to bring about an immediate increase in the uniformity of the sliver in that the function of the rolls is to break up the lumps and aggregates of fibers plucked from the nip of the feed roll and feed plate by the licker-in. This assembly can be readily applied to all Saco-Lowell cards.

TRUCKS CAN BE STACKED. They are light, sturdy, compact, and snagproof.

Trucks Solve Materials Handling Problem in Hosiery Mill

case 32

THE Portage Hosiery Co., Portage, Wisconsin, had a materials handling problem. When the operatives tied their dozens, they tossed them into a large truck. This procedure was satisfactory except that the lots had to be separated after they were collected. This took too much time, and the cost of handling was excessive.

The Portage Hosiery Co., chose a uniform system of Masonite trucks to solve the problem. These Masonite trucks were made by the G. B. Lewis Company, and they embodied all the desired features; they are light weight, maneuverable, snag proof, sturdy, compact, and they may be stacked. Stacking the trucks utilizes every inch of floor space so badly needed.

After using these Masonite trucks in every plant department for a substantial period of time, a plant official stated that the trucks solved their problem because they now produce more pieces in less time, with less labor, in less space, at lower cost, and with less spoilage.

Yarn Improvement of 25% Realized with Non-Oiling Top Rolls

case 33

IMPROVED yarn has been the result of the use of front line Climax ball bearing top rolls together with middle and back Cleandraft non-lubricating top rolls on spinning at the Futurity Thread Mill in Newton, Massachusetts, operated by B. G. Rae.

The original installation of Climax and Cleandraft top rolls sup-

plied by Product Sales, Inc., Whitman, Massachusetts, on double apron spinning as against conventional solid top rolls, showed a 30% reduction in ends down per thousand spindle hours with a concurrent yarn variation improvement to the extent of 25%. The yarn spun from the Climax and Cleandraft combination has increased in strength to an amount that is most satisfactory to the mill operators.

The operation of picking and cleaning top rolls, which is always a chore, has been extended from twice weekly to once every two weeks.

The Futurity Thread Mill, manufacturers of high-grade, heavy duty sewing threads, has now equipped all of its spinning frames with these top rolls because the mill estimates that the savings "will pay for the rolls in a very few years."

Quick Heat for Small Jobs from Miniature Blow Torch

case 34

A MINIATURE blow torch makes a worthwhile addition to any mill maintenance shop or hosiery machine fixer's tool kit. It is ideally suited for light soldering or sweating jobs requiring moderate or intense heat. It is ready for immediate use after the fuel is lighted.

Fuel is supplied by a dry tablet which will not drip or explode and operates at high heat (over 2000 F) only while air is being blown through the plastic tube. Fuel tablets burn away completely and can be replaced easily and quickly. The accompanying photographs show the "Super Jet" torch being used to solder a Komet knitting machine yarn feeder guide.

The torch may be used to heat stick shellac or sealing wax used in attaching porcelain yarn guides on many types of hosiery machine yarn racks. Many other light soldering and heating jobs may be done quickly with this torch. The torch is made by the Birk Manufacturing Co.

HE SOLDERS with tiny blow torch. Fuel is supplied by a dry tablet. Fixers like it.

Treated Lumber for Dye House Roof Keeps Maintenance Costs Low

case 35

WHEN American Textile Processing Co., Inc., in Paterson, New Jersey, designed its new dye house, the management wanted a roof which would give good insulating qualities and, at the same time, keep maintenance costs low. The problem was a serious one, because dye house roofs are subject to fumes, along with steam, which cause condensation.

Even though exhaust fans are provided and the roof is well insulated, it is not possible to prevent condensation. Under these conditions, a dye house roof decked with ordinary untreated lumber would begin to rot in a few months and need replacement in six or seven years.

American Textile Processing solved the problem by specifying that all wood used in the trusses and roof decking be pressure-

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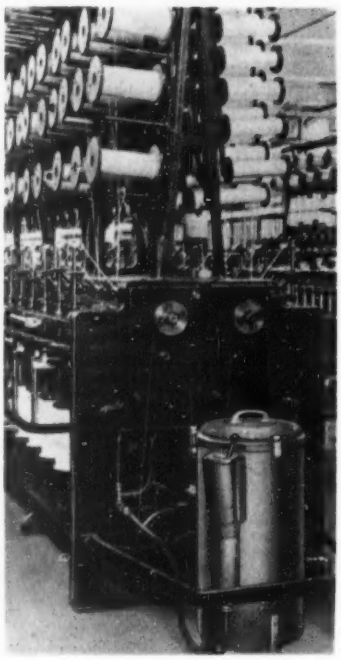
treated "Wolmanized" lumber. The ability of "Wolman" preservative salts to prevent decay and insect attack makes any lumber last three to five times longer. Because of this long-lasting characteristic, American Textile Processing is assured of a trouble-free roof and maintenance costs that will remain at a minimum.

Flyer Twister Production Increased by Centralized Lubrication

case 36

AT PREMIER Thread Co., Pawtucket, R. I., Lincoln CentrOmatic lubricant application systems were installed on high speed flyer twisters. The system on each flyer includes one manually timed, automatically controlled Model 1825 pump and a circuit of SL-4 injectors, serving 120 bearings simultaneously.

According to records at this mill, the automatic feature of this type of system has enabled the plant to maintain an increase of 25% in production in view of the complete elimination of downtime caused by parts wearing out from lack of lubrication. Furthermore, the cost of repairing these parts has been almost entirely eliminated, according to an official of Premier.



LUBRICATION SYSTEM reduced downtime.

Anti-Static Finishes at Converter Aid in Processing Synthetics

case 37

ON "DACRON," previously "Fiber V", processing had been continually hampered by the fiber's tremendous inter-fiber cohesion. This factor restricted the length of cut and the type of equipment over which it could be processed. By adding 1½% of Nopco 2152-X, a finish produced by Nopco Chemical Company, at the crimper rolls of the converter, Pacific Mills Worsted Division, Lawrence, Mass., is now able to cut any desired length of fiber and process over any desired equipment. Uniformity and quality of the yarn produced in this manner are greatly improved. The difference in draftability is said to be truly astounding.

One lot of nylon, 3.0 denier per filament, 300,000 total denier, had what Pacific Mills terms "poor drafting characteristics" inherent in the base material. This specific lot was found to be so inferior in its drafting characteristics that the only way of using the lot was to lose it as one end in four or five ends of a regular lot. By adding 3% of Nopco 2152-X finish to this poor lot of nylon, the mill was able to obtain drafting features which had never been obtainable on any previous lot of nylon.

In working with other mills, in a combined effort on processing 100% nylon, Pacific had never been able on a 3" cut to obtain better than 21% to 22% average unevenness, nor under 30% maximum unevenness on either top: i.e., 3 ounces per 5 yards, or pin draft sliver—50 grains per yard. Pacific readily obtained 12½% average unevenness and 17.8% maximum unevenness in three pin drafter operations, or gilling operations, after converting.

On other lots of nylon, with better drafting characteristics, the amount of 2152-X was reduced. Pacific feels that generally, 1½% is a good starting point, with gradual increases, if necessary, until the optimum results are obtained. The quality of the converter product, as with "Dacron," is greatly improved.

On a third synthetic, "Orlon," present tow finish gives a harsh, raspy draw to the fibers. This high inter-fiber cohesion and the high bulk factor requires less pressure in the slip sections of the converter. As much as 4% Nopco LV-40, another Nopco "balanced" anti-static treatment, has been applied neat, at the crimper roll, without causing the fibers to become oily or sticky. This percentage of added finish supplies the desired drafting properties for gilling and pin drafting as well as drawing and spinning.

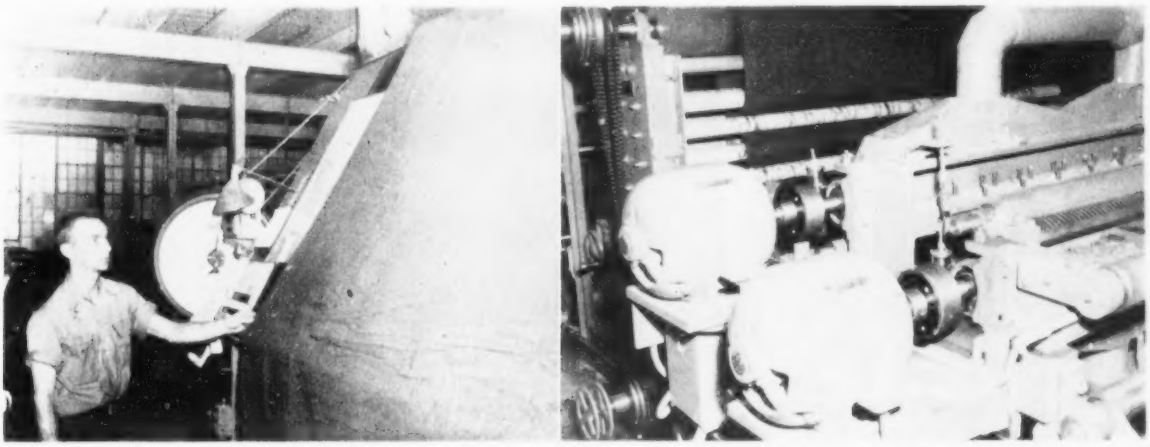
"Orlon" has entirely different processing properties from nylon or "Dacron." New settings and techniques are required for optimum results. However, these changes are not drastic ones. On any fiber, if changes are made on the original tow finish, either in type or percentage applied, the finish added at the converter may also have to be changed.

On acetate and viscose, Pacific Mills adds 1½% of Nopco AS-40, neat, at the crimper rolls of the converter to eliminate static and increase inter-fiber cohesion.

Vicara, of course, is almost al-

ways blended with other fibers. The type and percentage of finish required depend upon the blend. On a 50/50 blend of viscose and Vicara, 1½% of AS-40 is used.

The method used by Pacific for adding the anti-static finishes at the converter is simple, clean, and effective, and the mill has offered to demonstrate the method or to send diagrams and specifications of its equipment if requested.



PERCHING IS RAPID with Brampton's inclined back-lighted examining table. Revolvers are individually driven and lift automatically for seam passage through shearer.

Cloth Range Enables Mill to Eliminate Entire Perching Shift

case 38

WHEN Brampton Woolen Company of Newport, N. H., installed a new, compact Davidson automatic two-blade burling range, this producer of meltons and snow suitings was able to eliminate an entire weave room perching shift as well as all but one burler.

These economies are not only a tribute to improved shear design but also to the auxiliary equipment in the range which played a large role in stepping up production and quality.

From the moment that a loom cut is weighed and examined to the moment it is sheared and folded ready for finishing, there is not a single interruption in the flow of the fabric over Brampton's range. The one attendant for the machine first weighs the piece on a floor - recessed Fairbanks - Morse platform scale and then butt stitches the heading with a Dinsmore traversing seamer.

The cloth is driven by a ¾-hp motor over a 92" wide inclined inspection table into a large capacity scray. The table is indirectly illuminated by four rows of fluorescent daylight lamps mounted behind a glass panel over which the cloth travels. Here, defects in the cloth are brilliantly pointed out and marked by the percher. A Durant Productimeter registers linear yards.

When a sufficient amount of cloth is deposited in the scray, a stop-motion device starts up a ¾-hp drive for the fancy wire brushes, another ¾-hp drive for the slub catcher unit, and the 3 hp shear drive. Cloth is whisked through at 40 yards per minute. First it is brushed face and back; then it is passed through selvage guides to the slub catcher which consists of two banks of ten 3" diameter brushes arranged for alternate face and back contact with the cloth.

Now ready for shearing, the cloth is expanded and fed to face and back cutting revolvers that are separately driven by 1½-hp motors. The unusually large amount of flock accumulating from high speed shearing is exhausted to a collector through a large air volume ductwork by a 23" fan driven by a 15-hp motor.

One of the most dramatic features of Brampton's range is its GE electronic control for automatic seam let-through. Despite high speed passage through the machine, cloth is neatly finished to within 1½ inches of each side of the seam. A sensitive seam detector signals a time delay relay vacuum tube circuit in the control box nearby, causing the blade to stop, and return to operating position at pre-set intervals.

How is the cloth tensioned during its travel through this multi-motored range? By means of tension clutches located at four critical points; the top and bottom of the slub catcher, and the front and rear of the shear.

This Parks & Woolson burling range is operating trouble-free at Brampton, requiring little maintenance or supervision. Grease fittings on the shafts and roller or ball bearings throughout keep the range running smoothly.

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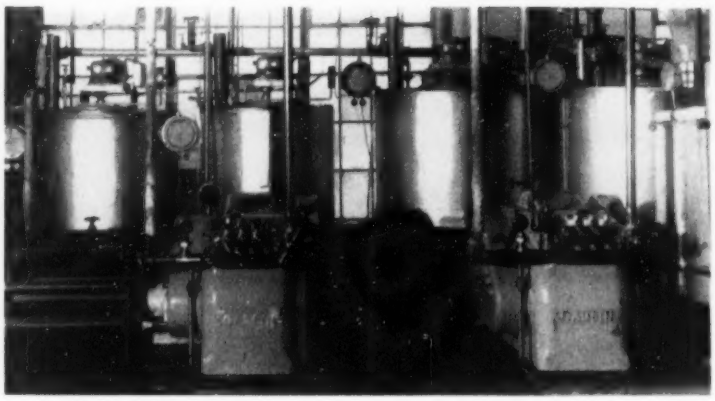
Weaving Efficiency Up, Costs Lower with Homogenized Size

case 39

THE TALLASSEE Mills of the Mt. Vernon - Woodberry Mills, Inc., Tallassee, Ala., have two Manton-Gaulin homogenizers which have been in continuous operation for about two and a half years.

This installation was made during a weekend and consisted of piping the conventional cooking kettles to the homogenizer feed pump which transfers the preheated slurry of starch, water, and sizing compound to the homogenizer. Here the viscosity of the sizing solution is broken down to the desired point by the homogenizer which subjects it to high pressure and mechanical shearing action, producing smooth size of uniform viscosity. The size then passes to the usual storage kettles and is ready to be pumped to the slasher size boxes.

Each of the homogenizers in this mill produces 400 gallons of finished size per hour. In this way a more than ample supply of size during starting-up and peak periods is available. One machine will take care of the needs when not running to full capacity.



UNIFORM SIZING and less shedding. Mill now uses pearl starch with homogenizers.

B. G. Stumberg, agent, made the following comments on his homogenizers:

"We are pleased with the results from this equipment and the maintenance cost has been low, in our opinion. After the homogenizers were installed we noticed a slight difference in the shedding on both slasher and looms. There was less shedding. Our weave room efficiency increased slightly.

"We find in using homogenizers we get a more uniform sizing and have less trouble keeping our weights within the tolerances we have set for our standards. When we installed these homogenizers, we started using pearl starch in place of modified starch and the difference in cost will pay for this equipment, depending on the amount of starch used. We are thoroughly sold on this equipment for our slashing department."

Fewer Full-Fashioned Machine Stops with Float Rings

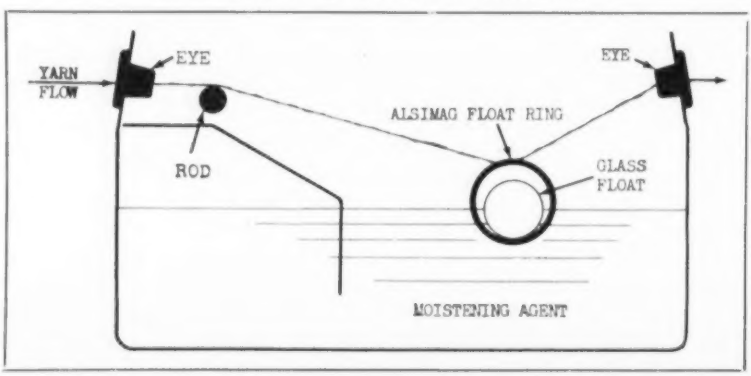
case 40

PROVED by actual everyday use in more than 100 mills, AlSiMag float rings are saving full-fashioned hosiery mills a lot of money. These float rings are made by the American Lava Corporation.

The yarn used to travel under the float in the moistening trough on full-fashioned hosiery machines. In a short time, the yarn would cut or roughen the bottom of the float. This would result in yarn damage which in turn meant press-offs, machine stops, and damaged or ruined hosiery. The newer float rings cure all of these troubles.

A float ring is slipped over the float, and then the yarn is threaded through the ring above the float at an angle. Movement of the yarn turns the ring. This movement of the ring helps to prevent wear. The float ring is hard, resistant to wear, and is almost impossible to cut by yarn action.

CHAFED YARN reduced with this float ring.



Movement of the ring with the yarn travel changes the wear surface constantly.

The bottom of the ring is in the moistening agent, and as it moves, moisture is brought to the top. Yarn traveling at an angle through the ring automatically removes excess moisture. The yarn travels above the float and cannot cut the float. With this arrangement it is possible to keep the level of the moistening agent quite low, thereby minimizing splash-over.

New Boiler Installation Doubles Dye Plant Steam Capacity

case 41

GLOBE Dye Works of Philadelphia, Pennsylvania, has installed a Babcock & Wilcox integral furnace boiler with a top capacity of 45,000 lb of steam an hour. Existing boilers, installed in 1925 and converted for oil in 1946, have a combined capacity of 40,000 lb of steam an hour. Total steam capacity is now 95,000 lb of steam an hour. For the present one of the old boilers is in use to supplement the capacity of the new boiler, the other old boiler being maintained on a standby basis for peak load use.

With the new boiler, temperatures up to 330 F can be obtained, although 320 F is the highest temperature used in the Globe dyeing operations, and 250 F is the highest temperature presently required for high pressure and high temperature dyeing.

The new boiler is oil fired and has steam atomized burners. Should the flame be extinguished for any reason, the oil supply is instantly shut off by means of a photo-electric cell that "sees" infra-red present in oil flames. A solenoid electric device de-energized by the photo-electric cell cuts off the oil supply, thus preventing the accumulation of explosive gases in the boiler and risk of an explosion that might be set off by the heat remaining in the bricks.

Both automatic and manual controls are provided. Rate of boiler combustion is maintained by a Bailey meter of the steam air-flow type, with a flue gas pyrometer. Forced draft and induced draft fans are provided. Water level in the boiler is maintained by a Copes automatic feed water regulator.

Stop Motion for Cloth Folders Saves Labor, Cuts Costs

case 42

ONE prominent mill recently cut cloth room operating expenses by installing electric automatic stop motions on cloth folders. Features of the automatic stop motion permit one man to operate two or more folders, thus making a decided reduction in cloth room costs. The folders shown in the accompanying illustration are running 118 yards per minute.

The electric automatic stop motion was developed by Curtis & Marble Machine Co., Worcester, Mass. The device stops the cloth folder at every seam in the cloth. The seam may come at any place on the folder table; therefore, the stop motion is arranged so that the folder blades stop the next stroke after the seam actuates the controls when the blades are going away from the operator.

The actuating mechanism is sensitive enough to operate on any type of seam. The cam arrangement can be adjusted to stop the

HE RUNS TWO FOLDERS (or more) because the machines are equipped with electric automatic stop motions.

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folder blades at any point just beyond the middle of the table, so the folded package can be removed easily. Stopping back of the middle of the table is also a safety feature, so that the folder blades will start moving away from the operator when the machine is started again.

This feature permits one operator to handle two or more folders.

Automatic Lubrication Increases Spinning Frame Production

case 43

NO UNEVEN LUBRICATION. A measured amount of oil goes to these rings every 8 to 10 minutes.

Other benefits derived from automatic ring lubrication system on Model E frames: less waste, better yield from each lot, oil consumption reduced by one-third, uniform tension on all bobbins, fewer ends down, longer traveler life.

THE advantages of automatic metered lubrication have been well demonstrated on spinning frames at the W. J. Dickey & Sons mill at Oella, Maryland. Twenty-two of their Whitin Model E frames are equipped with systems supplied by Bijur Lubricating Corporation for automatic ring lubrication.

Formerly, these frames, with 90 to 150 spindles each, were manually lubricated through small reservoirs feeding to the ring wicks. Overfilling of the reservoirs often caused difficulty with oily frames, and when oil feed was reduced as the reservoirs emptied, glazing of wicks at the feed points resulted. This uneven lubrication affected general operation of the frames.

The Bijur systems, as installed, have completely overcome these difficulties. Now, a central lubricator driven by the drum shaft feeds a measured amount of oil automatically to a distribution system every 8 to 10 minutes. The distribution system passes the oil to small Meter-Units—one for each ring—which measure on each cycle an accurate, pre-determined amount of oil through passages in the rail to the ring oil grooves. The travelers then wipe oil around the inner ring surfaces, providing continuous lubrication between cycles.

The Meter-Units and distribution lines are mounted permanently on the front of the rails, and are connected to the central lubricator by flexible hoses.

Harry S. Dickey reports that these Bijur installations have resulted in:

(a) Less waste and greater production
(b) Better yield from each lot
(c) Reduced oil consumption by more than one-third
(d) Even tension on all bobbins
(e) Fewer ends down
(f) Longer traveler life
(g) More time for spinner patrolling all frames

Increased efficiency made possible by automatic lubrication has resulted in W. J. Dickey & Sons' decision to completely equip the balance of the frames in their mill with the lubrication system.

PINPOINTS DEFECTS so mill gets at root of trouble.

Evenness Tester Aids in Improving Worsted Yarn Quality

case 44

PACIFIC Evenness Testers in operation at the Woonsocket, R. I., and the Ramseur, N. C., plants of Guerin Mills, Inc., have proved instrumental in bringing up standards of the drawing and spinning operations, according to a report from a management official of these mills. In starting a plant with inexperienced help and new machinery, spinning yarn to high standards was difficult to attain, according to the report.

Use of the Pacific Evenness Tester in the Ramseur, N. C., plant permitted the mill to get at the root of the trouble very quickly and to point out the defects to the operators. As a result, the length of time it took to attain the established standards was considerably shortened, thereby effecting substantial savings which have already paid for the machine installation.

The tester used in the Woonsocket plant has also helped in improving operations in drawing and spinning by localizing processing difficulties and defects, and better yarn and cloth are a direct result of improved processing. The savings in this instance have also paid for installation of the tester.

One Elevator Serves Two Buildings

case 45

A LIGHT-DUTY freight elevator has solved the problem of adapting existing buildings to changes in manufacturing processes in the plant of the 50 year old Fulton County Silk Mills, Gloversville, N. Y.

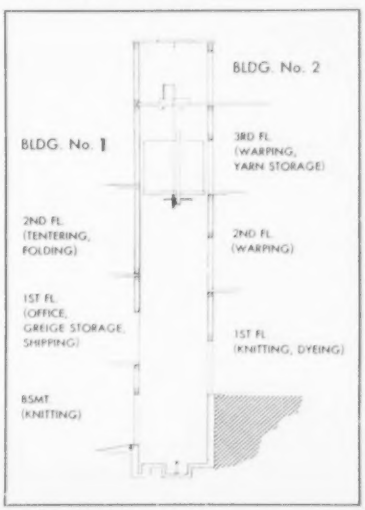
Until recently, weight was a minor consideration in materials handling at this plant. The small hand-hoists used for vertical transportation were adequate for lightweight bobbins of silk that once made up a large part of Fulton's milanese and tricot production. Heavier synthetic yarns on larger bobbins now comprising the bulk of Fulton's output, combined with a difference in floor levels between the two principle buildings, had created a handling problem which hand hoists couldn't solve.

An elevator installed by the Otis Elevator Company eliminated the bottleneck. It is installed in the taller of the two adjoining buildings shown in the drawing. The car is equipped with doors at both ends so that the elevator can serve all floors in both buildings. Although each building has three stories, the elevator can make five stops in a total rise of 34'-7". The elevator provides a convenient and efficient means of access between the two buildings which was not possible before.

Bi-parting counter-balanced doors permit fast opening, and mechanical interlocks and electrical contacts insure safe operation. The car has a capacity of 2500 lbs at a speed of 25 feet per minute. The car platform, 6 ft wide by 8 ft 6 in. deep, permits fast loading and unloading with wheeled-trucks and manual jack-lift hand trucks.

Based on estimates which led to the purchase of the elevator, officials of the company expect to cut materials handling expenses to 18% of costs without the elevator, or a saving of 82%.

BUILDINGS CONNECTED by elevator. Time saved.



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Drive Arrangement Provides Improved Elastic Fabric Stretch Control

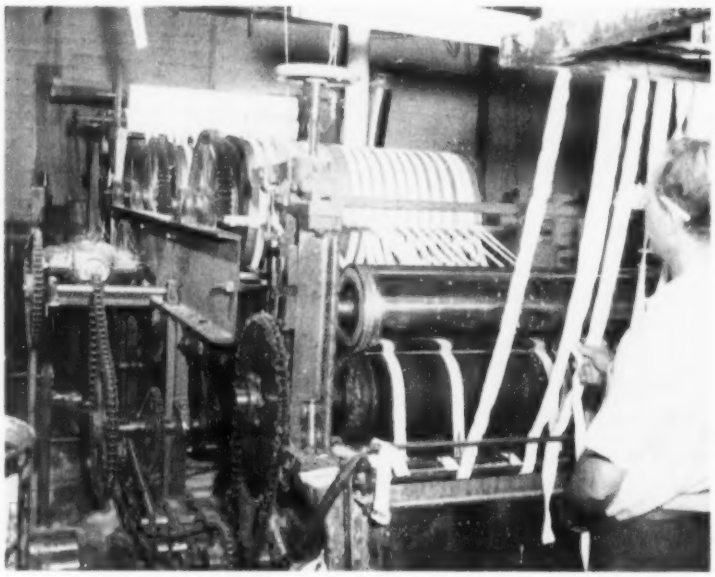
case 46

THE Union Narrow Fabric Corp., Springfield, Mass., is a manufacturer of narrow fabrics, many of which are elastic. In the plant's list of operating equipment are two dry cans, each comprising a series of seven power-driven steam heated drums around which the material is wound to dry and set the fabric. These dry cans, with the seven drums spur-geared to each other, had variable speed control of rate of feed to machine, but this was found to be inadequate for proper control of stretch of elastic fabric.

The problem was solved by splitting one machine into a 3-drum entry section and a 4-drum rear section with separate speed control through a Link-Belt P.I.V. variable speed drive to the output or exit rolls.

The fully enclosed, self-lubricating P.I.V. provides infinite regulation within a maximum speed ratio of 2 to 1 by the turn of a hand wheel while the machine is in operation. P.I.V. is integrally equipped with a speed increasing gear set on input side and a speed decreasing gear set on output side.

Input shaft of P.I.V. is driven from a countershaft of the original 1½-h.p. drive through two speed-increasing Link-Belt RC precision steel roller chain drives, with new countershaft turning in Link-Belt ball bearing pillow blocks.



STRETCH IS CONTROLLED when narrow fabric mill uses variable speed drive on dry cans.

Output shaft of P.I.V. is connected to rear section of machine through other L-B precision steel roller chain drives and a new countershaft, turning in L-B ball bearing pillow blocks.

The latter RC roller chain drives decrease the rpm in order to synchronize the rear section with the entry roll shaft at 3 rpm.

By means of the P.I.V. it is also possible to control the rear section up or down of the 3 rpm, thereby providing great flexibility and complete control of stretch.

Cotton Mill Keeps Carding Costs Low with Metallic Card Clothing

case 47

THE installation of Platt's metallic card clothing at Columbus Manufacturing Co., Columbus, Ga., has provided more economical operation of cards. This company standardized on metallic card clothing in 1929, and over a period of fifteen years replaced all of its old clothing with metallic clothing. This resulted in their having an exceptional low cost for carding.

The benefits accruing from use of Platt's metallic card clothing are as follows:

All grinding of cylinder and doffer is eliminated.

Stripping cylinder and doffer at frequent intervals is eliminated. It is necessary to strip metallic clothing once a week at Columbus Manufacturing Co. on the type of cotton processed there. The stripping is done with a standard wire covered stripper roll.

Variation of card sliver due to cylinder and doffer loading is entirely eliminated.

Nep count is constant.

A bale of cotton is saved per card per year per 80-hour week.

Amount of long fibers in flat toppings is reduced; only about 15% good fibers as compared to 85% on other clothing.

A considerable amount of labor

was saved at Columbus by drastically reducing stripping and grinding.

Production was increased because no cards were out of production for grinding or stripping.

Mechanical Beam Letoff Prevents Shadow Marks in Tricot Goods

case 48

ONE South Carolina tricot mill is reaping benefits from Robert Reiner machines equipped with the new mechanical beam letoff. The new feature is essentially a variable speed drive of the metallic cone type which drives the yarn beams at a constantly increasing rate in revolutions per minute, so that the lineal letoff is constant regardless of the diameter of the yarn on the beams.

When new beams are put in place, the operator measures the circumference in inches and then sets a pointer on a large dial to that figure. Another pointer is set to the desired amount of yarn in inches per rack, and the drive acts automatically to maintain that runner length throughout the life of the yarn on the beam. These settings are made for both sets of beams feeding the warp ends.

The mechanical letoff has actually eliminated the cloth defects caused by the use of friction brakes. According to the superintendent of the plant, shadow marks are completely eliminated by the mechanical letoff. Although this mechanical letoff takes some initial setting and occasional checking by the fixer, the management at the mill says that the equipment does a good job without excessive maintenance.

Wool Dryer Conveyor Brush Saves Labor, Stock

case 49

Necessity for cleaning under machine eliminated after brush was installed; wool droppings are not soiled.

MAN-HOUR savings and the recovery of wool formerly classified as waste have proved the economy of installing brushes on wool drying oven conveyors.

A leading Philadelphia producer of carbonized and scoured wool faced this problem:

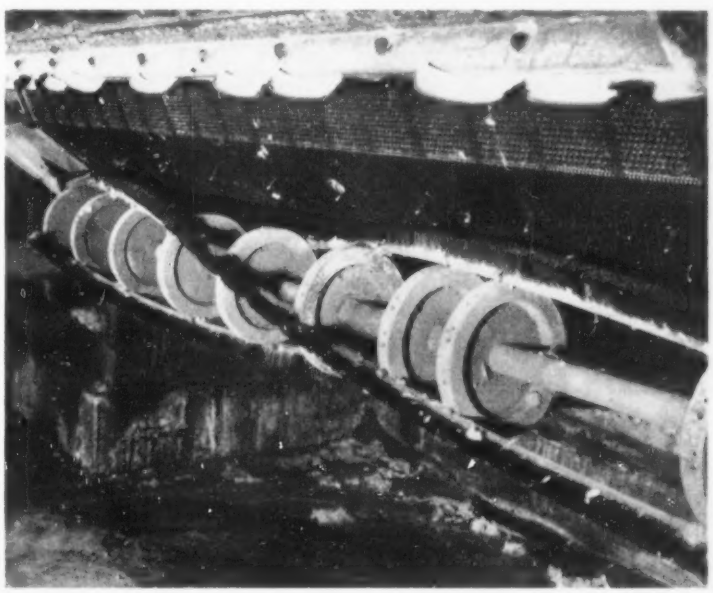
Freshly scoured wool was carried through drying ovens by a sectional, perforated conveyor. Small quantities of wool clinging to the conveyor face dropped to the floor during the return trip, littering the area beneath the dryer machine along its entire length.

The floor area had to be cleaned at least once a week as well as every time the wool lots were changed, requiring 8 to 10 man-hours of labor. In addition, this large accumulation of soiled wool could be sold only as waste.

A Fullergript power-driven unit composed of three spiral brush strips 87½" long, supported by flanges on a central shaft, was mounted under the delivery end of the conveyor. Crimped black nylon (.016) was selected for the brush filler in view of its resiliency and long wearing qualities.

At the start of its return trip, the conveyor is swept clean of all accumulated wool which drops directly below in one neat pile. It is no longer necessary to clean beneath the machine; man hours are saved. With the wool in an easily accessible pile at the end of the machine it is quickly picked up and can be included with the rest of the machine output because it is not soiled.

BRUSH COLLECTS WOOL and keeps it clean. Results: man-hours saved; wool not considered waste.



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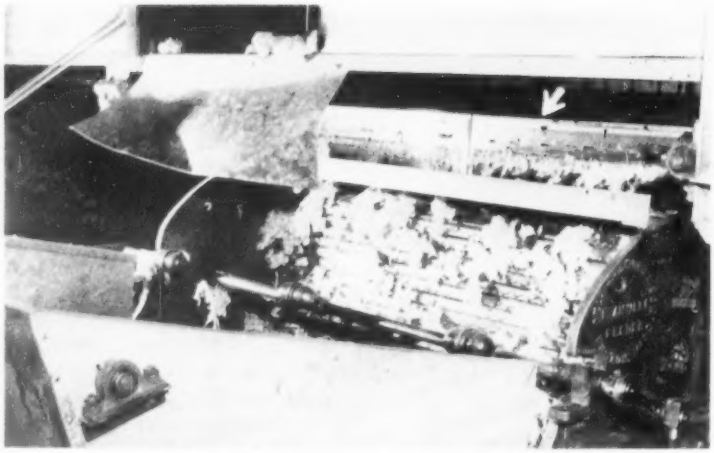


SPIKED APRON MAGNET removes tramp iron, thereby protecting machinery and reducing fires.

Spiked Apron Magnets Protect Cards, Garnetts from Tramp Iron Damage

case 50

SPIKED apron magnets for removal of tramp iron from processing lines have proved their worth in seven plants of the Burton-Dixie Corporation, according to that company. A total of 61 Eriez magnets are employed in Burton-Dixie's plants at Detroit, Lansing, Chicago, Memphis, Dallas, Blacksburg in South Carolina, and Kansas City, Missouri.

These powerful non-electric devices pull all sorts of ferrous metal scrap out of processing lines and retain it for subsequent removal. Cards, garnetts, and other machinery are thus protected against damage from tramp iron, product contamination, and fires from sparks due to tramp iron.

All magnetic separators used by Burton-Dixie are Eriez spiked apron magnets specifically designed for textile and bedding applications, and claimed to be the only permanent magnets today offered that are approved by Factory Mutual. They are installed at the top of the spiked apron at the last possible point before the material being processed enters garnetts and cards. Consequently, maximum protection is obtained. The base on which the magnets are mounted is hinged, and textile lift handles are provided for easy cleaning.

Stainless Steel Slasher Roll Jackets Save $163.47 Per Year

case 51

SEVERAL years ago, Monroe Cotton Mills, Monroe, Ga., began using stainless steel jackets on the sizing and finishing rolls of three slashers. In the next 12 months, following installation, these stainless jackets accounted for a saving in maintenance costs of $163.47, or $54.49 per slasher.

The rolls used previously required cleaning at six-month intervals. The company estimates labor costs for the twice-yearly cleaning of the three slashers at $110.40, to say nothing of lost production during the eight-hour shutdown at each cleaning.

The remaining saving of $53.07 is in slasher cloth. The stainless steel jacket rolls produced more than 1,000 yards of additional fabric per yard of slasher cloth, due to elimination of rust.

These maintenance savings alone paid the entire cost of the stainless roll jackets in less than two years. And they still had years of service life left. In addition, appreciable savings were realized from elimination of rust-contaminated yarn before each semi-annual cleaning.

Minimum maintenance, long service life, and freedom from product contamination — all advantages of corrosion resistant stainless steel—were set forth by experience at Monroe Cotton Mills. The slasher roll jackets used in this mill were manufactured by the United States Steel Co.

Knitting Machine Cleaned and Rust-Proofed at Same Time

case 52

THE NYLON knitting machine was new, and the Pennsylvania mill superintendent wanted to keep it clean and free of rust. The catch was that any sticky film on the machine would be picked up by the yarn and raise havoc in the dye house.

After much consideration, mill men decided to use the following procedure, under the watchful eye of the equipment manufacturer. Once a week, Oakite Special Protective Oil was "squirted" on inaccessible parts, such as sinker heads, etc., with an ordinary oil

can with a push button pump. The excess oil was then blown off, down into the drip pans under the machine. Parts like shafts and cams, which could easily be reached by hand, were wiped down with the Special Protective Oil.

After a year of such treatment, the superintendent reports not a single trace of rust on the machine, and not one complaint from the dye house about oil or residue on the hosiery. Two other machines, which did not receive this treatment, were rusted and coated with dirt films.

The Special Protective Oil is a rust-preventive oil of extremely low viscosity. It coats surfaces with a thin film that effectively resists moisture. It dries down with a minimum of tackiness.

Vat Dyeing Process Provides Savings in Chemicals, Improved Fastness

case 53

THE measurement of oxidation-reduction potential as a means of improving the fastness properties of vat dyes is now being accomplished, without a pre-amplifier, by the Foxboro Dynalog Redox Recorder. Key instrument in the new Marhen process of batch or continuous dyeing, this standard EMF recorder is especially suited to the Marhen method because it receives its electrical signal directly from the dye bath.

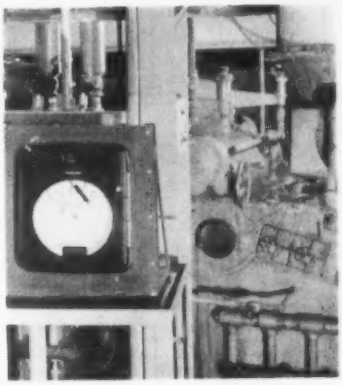
Until the introduction of the Marhen process, estimate of the power of the dye bath to reduce the dye and fix it to the cloth successfully was largely a matter of the dyer's skill and experience, supplemented only by tedious titrations and indicator papers. In the scientific Marhen process, there is an accurate, continuous measurement of the reduction power in millivolts to guide the control of the process.

In operation, the Dynalog Recorder is directly connected to two electrodes which are submerged in the dye bath, continuously measuring the reduction potential. Knowing the potential required for reducing the dye, the operator adjusts the quantities of hydro and caustic which react to release electrons and thus create the necessary potential, recorded in millivolts on a circular chart. (The chart can be read to within 5 mv accuracy, but differences of as much as 15 mv will not affect the shade.) Since one degree of temperature change produces a change of two millivolts in reduction potential, a temperature record in degrees F is generally provided on the same chart.

The chart range, from 600 to 1200 mv for continuous and package dyeing, can be shifted by a selector switch in the instrument to measure any 600 mv span between zero and 1400 mv. Higher ranges are obtainable.

In addition to the chart, the Dynalog Redox recorder is equipped with an expanded segmental indicating scale, visible at a considerable distance. An alarm may also be included to signal departure from the desired potential, and control devices may be installed to regulate hydro-caustic content, correcting the dye-bath potential automatically.

Commercial users have reported savings of up to 1000 lb of hydrosulphite per day, increases of 10 to 20% in color yield, excellent shading from high temperature (200 F) processing of 1 million yards of Vat Blue BC, and production speed increases up to 100%.



CHEMICALS SAVED when instrument controls process.

V-Belts Provide Solution to Drawing Frame Drive Problem

case 54

TWO DRAWING frames were driven from an overhead lineshaft at the Eastman Cotton Mills, Eastman, Ga. These lineshaft drives were troublesome in starting up, especially on Monday mornings when all the bearings were cold.

When the management decided to remove overhead lineshafting, they were concerned over the design of new drives because they needed to be able to change the speed of the drawing frames occasionally. They consulted a Gates engineer, who assured them they could easily do this by using the same flat pulleys they had formerly used. The engineer suggested driving the drawing frames with Gates Vulco Ropes running directly on these flat driven pulleys.

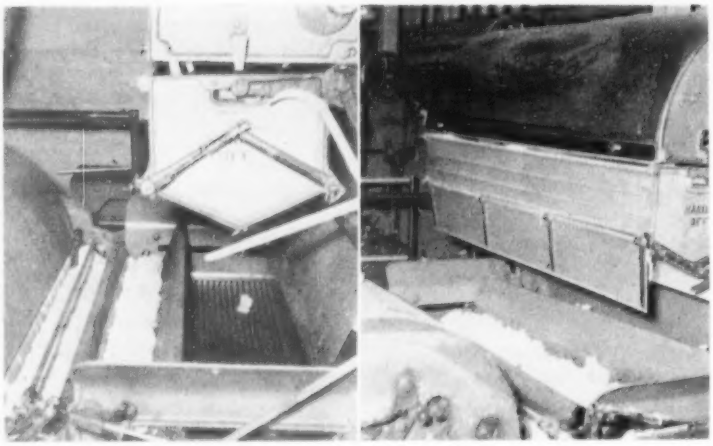
The Vulco ropes are not affected by the fly lint in the air. They drive the drawing frames without slipping; furthermore, because the motor is mounted on slide rails, speed changes are easily and quickly made by loosening the belts, changing the flat driven pulleys and tightening the belts again.

CASE HISTORY REPORTS

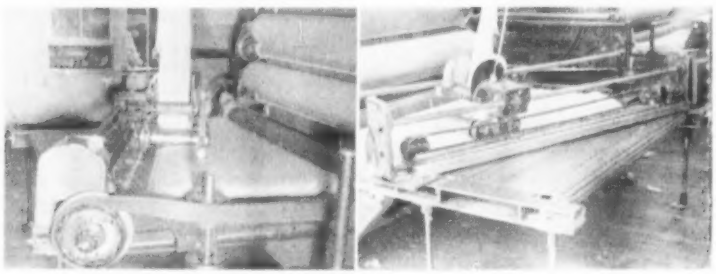
CASE HISTORY REPORTS

Diagonal Feeding Reduces Wool Roving Variation

case 55



TOP SCALE PAN (left photo), before, with push board set normal parallel to feed rolls. (Right) scale pan, after, with push board set at diagonal to feed rolls.



LEFT SIDE (left photo) of broad band feed. (Right) broad band feed, right side, with traveler set at diagonal on feed table.

ROVING UNIFORMITY tests at High Rock Mills, Inc., Philmont, N. Y., have demonstrated significant improvements in periodic weight variations since the feed tables of Whitin woolen cards were modified.

Working on the assumption that scale pan drops are cyclic, and that the time between drops might vary due to hopper load conditions, mill officials rationalized that this factor would introduce thick and thin lengths along each end of roving. The thick portions would represent close interval scale pan drops, and the thin portions served notice that a longer than normal time elapsed between drops.

Of course, a variable-speed driven hopper would correct such a condition but a solution was sought without having to re-equip. By setting the breaker feed table push board at a diagonal with respect to the feed rolls, stock is delivered in such a way as to represent an accumulation of at least two droppings across the card. The right portion of the feed table contains stock from the previous drop while the left hand side contains stock from the next drop. Thus, time differences between drops tend to be averaged out.

Using the same principles, the position of the broad band feed was changed. One end of the traveler was set approximately one foot from the feed rolls, and the other end was canted back about three feet. With sliver laid out diagonally on the feed table, the feed rolls nip at least 20 layers of sliver at any given moment, thereby averaging out longitudinal variations.

The accompanying four photographs show the simple mechanical adjustments used to accomplish greater roving evenness.

Multi-Burner Spreader Stoker Gives Flexibility in Bleachery

case 56

THE Yates Bleachery Company plant at Flintstone, Ga., was originally equipped with three, 200-hp water tube boilers arranged for hand firing. Due to increased production and higher steam load, furnace volume was increased by lowering firing floor and installing three Fyr-Feeders, manufactured by the American Coal Burner Co.

In 1949 it was necessary to carry a lower operating pressure on one of the boilers. In view of plant production, management decided to remove this boiler and replace it with a large steam generator to carry the load and use the two remaining boilers for stand-by service. A high capacity Fyr-Feeder Air-Spray-Spred Multi-Burner Spreader Stoker with dumping grates and automatic combustion controls was selected to serve the 45,000 lb/hr steam generator.

Unit provides flexible operation which responds to sudden load changes common in plant operations of this kind.

Yarn Evenness Tester Reveals 85% of Thread Breakage Causes

case 57

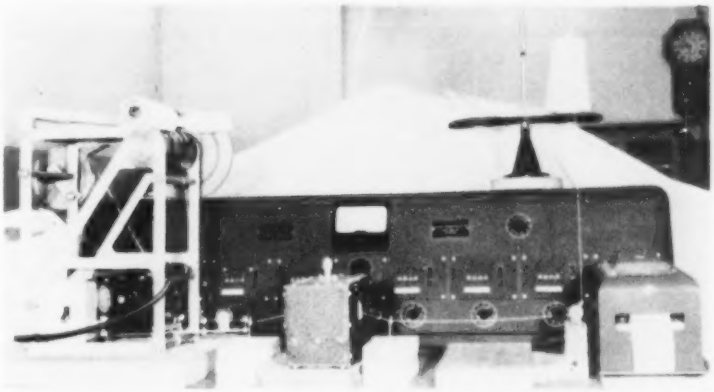
IN THE opinion of The American Thread Company of Willimantic, Conn., the use in the laboratory of a new electronic machine for evenness testing of yarn has resulted in all mill units becoming quality minded. This mill has reported that Standard Electronic Research Corporation's Yarn Analyzer has shown around 85% of the faults which cause thread breakage and that the instrument is a valuable aid in correlating yarn variations with their respective causes, leading to an early cure for these faults, and raising the standard of an already high quality thread.

The SERC Electron Micrometer is a non-contact gauging instrument which is used in the textile field to check the quality of yarn, thread, and filaments. It measures the actual diameter and records variations on a meter, on high speed recording equipment, and on counters. These counters can be pre-set to count the number of defects above and below the mean diameter. Each counter can be set to be actuated whenever a defect of a certain size, either thick or thin, shows up.

For instance, the first counter on the thick side could be set to count defects above 0.002", the following 0.004", the next 0.006" and the last 0.010". In the case of coarse yarns or jute, these levels can be extended to 0.020" or 0.040." The counters on the low side can be simultaneously set for some other values such as 0.001", 0.003", 0.005" and 0.007". All these are determined by the technician in charge according to the quality of the yarn under inspection.

The yarn to be measured does not have to be specially conditioned, because the humidity content of the specimen under test does not affect the diameter readings.

After a given length of the yarn has been passed through the inspection head, the readings on the counters give a frequency distribution with sufficient cell groupings for accurate statistical analysis, thus removing the chart interpretations for determinations of average values and other measures of standard deviations.



DISCOVERS THREAD BREAKAGE causes at American Thread. Humidity content of yarn does not affect readings of the instrument.

High Temperature-Pressure Machines Aid Dyeing of Synthetic Hosiery

case 58

HIGH temperature-pressure rotary dyeing equipment in use at Standard Hosiery Mills, Century Division, Burlington, N. C., saves time, saves dyestuffs, and eliminates the use of most toxic chemicals. This equipment is said by management to assure better color fastness, deeper, and darker shades, and to improve dyeing operations on synthetic fibers processed at Standard. Basic colors are dyed readily under pressure and at elevated temperatures to produce good fastness properties.

Many blends of Orlon, nylon, cotton, and other fibers, which could not be dyed at conventional temperatures, can be dyed at elevated temperatures with excellent results. Personnel at this mill stated that they are pleased with the dyeing equipment, which was supplied by Gaston County Dyeing Machine Co., and that the mill can do work on this machine that would be impractical or troublesome to do on conventional equipment.

The operators have no fear of the machine from the viewpoint of safety, although it operates considerably above the boiling point of water and in some instances under high pressures. After having the machine in operation for one year, this mill has had surprisingly little maintenance, according to mill personnel.

At Standard Hosiery Mills the high temperature dyeing equipment is used to dye hosiery containing synthetic fibers, and the machine is operated as a conventional machine until the high temperature process is ready to start. Then the dyeing machine is closed off and is heated to 250 F with indirect steam through a jacket or coil. At the end of the cycle at the elevated temperature, the equipment is cooled by running water through the jacket or coil. Then the remaining operations are similar to conventional procedures.

CASE HISTORY REPORTS

Automatic Brine Making Machine Saves Money in Dye House

case 59

IMPRESSED with the savings that a 36-inch fabricated enameled steel Lixate rock salt dissolver made possible at its mill in Willimantic, Conn., The American Thread Company installed a large concrete silo storage Lixator in its plant at Bristol, Tenn. And, pleased with the results obtained there, the company has just had another silo storage Lixator built into its modern, recently completed mill at Sevier, N. C.

The American Thread Company uses this brine not only in dye machines, but also for regenerating zeolite water softeners.

An engineering development of the International Salt Company, Inc., the equipment solves problems of brine production and use by automatically making fully saturated, self-filtered, crystal clear brine from economical rock salt. It consists of a rock salt storage hopper, a dissolving zone, a filtering zone, and a brine collection chamber. Rock salt flows by gravity from the hopper into the dissolving area in the tank beneath it. Water enters this tank near the top and, flowing down, dissolves the rock salt until it becomes fully saturated. From that point on it flows through the bed of undissolved rock salt in the bottom of the tank, which acts as a filter that removes all insoluble matter from the brine. As a result, when it reaches the brine collection chamber, the brine is crystal clear, fully saturated, and pure. From there it is piped throughout the plant to its various points of use, and measured through a large register dial flow meter. The operator turns a valve when needed.

Bobbin Conveyor Investment Amortized in Fifteen Months

case 60

INSTALLATION of a Cleveland Tramrail automatic dispatch system at Erlanger Mills, Inc., Lexington, N. C., saved so much time that the entire cost of the equipment was paid for in less than 15 months. Additional savings in a year from elimination of wear on the floors are estimated to amount to as much as the cost of the system.

The system handles boxes of bobbins from the spinning department on the first floor of one building to the twisting department on the second floor of another building. The vast amount of tedious manual labor formerly required has been eliminated. Regardless of weather condition, season of year, or time of day or night, the automatic system hauls its loads unhampered. No men are needed especially for this work because men in both buildings can take care of the simple task of loading and unloading the van along with their regular work.

The carrier will operate only after the van doors are closed firmly. Then pushing a button starts the carrier on its way. Building doors are opened and closed automatically. When the carrier reaches its destination, it simply stops and remains in place until loaded or unloaded. Pressing a button returns it to the other building.

Steam Generator Provides Flexibility and Efficiency in Wet Processing

An account of the way automatic packaged unit boilers can follow widely varying loads, provide savings on equipment.

case 61

TWO 300-hp gas-fired Orr & Sembower Powermaster automatic packaged unit boilers in a southern mill are operated at ratings of from 3000 lb/hr (less than 20% of rated capacity) to 18,500 lb/hr (over 100% of rating) while maintaining constant steam pressure within a 2 psi variation in the 100 psi range. This installation is an example of the ability of the steam generating units to follow widely varying loads and provide savings on equipment such as direct condensing dye vats, batch cooking, and platen presses.

The maximum load change in the forementioned installation was recorded during a ten minute interval when the load increased from 6500 lb/hr to 18,500 lb/hr. At that time there was a momentary pressure drop, immediately recovered, down to 95 psi. The pressure curve regularly shows pressure maintained between 98 psi and 100 psi.

Through a pressure controlled potentiometer, the damper motor of the package unit boiler simultaneously positions the fuel valve and air damper for uniform combustion efficiency.

Combs Handle Wool and Synthetics at Julliard

case 62

SIXTEEN Stellite rectilinear combs have been installed at the Atlantic Mills of A. D. Julliard & Co., Inc., in Providence as part of their large scale reequipping program. Besides yielding nearly 60% higher production than the combs which were replaced, the new 13″ combs have put Julliard in a strong, competitive position due to their ability to accommodate a wider range of stock.

The Stellite combs are handling a variety of wools from the shortest merinos to the long lustres in addition to all synthetics from 2″ to 7″ staple. In line with Julliard's standards of quality, the combs are used for first combing of shorter materials and recombing of more delicate blends.

One of the factors contributing to the well-rated performance of these combs is their mono-block construction wherein the sides and bottom of the frame are integral. This allows speeds from 110 to 120 nips per minute without any vibration. Recombing at production rates of 15 to 17 pounds an hour is possible with eight machines per operator. Efficiency is calculated at 92%. Vital parts are easily accessible, so that settings and other adjustments can be made in very short time.

The sixteen machines are individually driven by 1 hp motors (American) and V-belt drives. Replacement parts are available from large inventories warehoused in the United States.

60% MORE PRODUCTION and a strong competitive position are advantages derived by installing these Stellite rectilinear combs in A. D. Julliard's Atlantic Mills.

Centralized Lubrication on Spinning Saves Oil and Labor

Only 2.05 man hours per week are required for oiling head end bearings on 419 frames; whereas 80.58 man hours were required to oil them by hand. Lubricant consumption also reduced.

case 63

A PROGRESSIVE mill in Alabama has had considerable experience with Bijur central lubrication on the head ends of spinning frames. This mill has at present 419 frames on which the savings, attributed to improved lubrication, have been recorded as shown by the following figures:

Head end bearings, oil twice weekly—hand lubrication, 80.58 man-hours per week (frame out of production).

Central lubrication, 2.05 man-hours per week (frame running). Savings in labor, 78.53 man hours per week—savings in down time, 78.53 hours per week.

These figures do not include oiling of rolls, spindles, etc., but are comparative figures on head end bearings only. The time required for filling the lubricator reservoir is also not included; this is offset by the time required to fill the oil cups, which in either instance occurs approximately once per month.

This mill makes the positive statement that centralized lubrication has permitted a saving of 33% to 50% of oil as compared to manual oiling.

CASE HISTORY REPORTS

CASE HISTORY REPORTS

Worsted Mill Cites Advantages Derived from Colloidal Silica in Emulsion

case 64

ONE well-known worsted mill makes a variety of sales and novelty yarns on both the French and Bradford systems. This mill makes a standard oil emulsion which is used on both their French and Bradford systems. The emulsion is made of two parts of water, two parts of light-bodied conventional type worsted oil, and one part of Monsanto Chemical Company's Syton, plus a small amount of penetrant.

According to reports from this mill, they have gained the following advantages by using Syton:

(1) On knitting yarns they have been able to maintain their break factor with less twist which has resulted in more lofty yarn.

(2) They have been able to spin certain stocks to finer counts than was ever before possible, resulting in increased profits.

(3) On the French system, particularly, with blended lots they have maintained a more even yarn by controlling effectively the drafting qualities of dissimilar fibers.

(4) Where the type of stock and the amount of twist are specified, they have reduced waste, increased strength, and made a more uniform and smoother yarn.

The same emulsion is used on both the French and Bradford systems, but the amount of emulsion applied is adjusted. By adopting this procedure, the mill has been able to maintain the optimum Syton-to-oil ratio.

Overhead Conveyor Transports and Stores Picker Laps

case 65

MANY large textile mills have found the overhead trolley an ideal materials handling method of conveying laps from picker room to the carding department.

The Webb Trolley Conveyor in the Toxaway Plant of Textron Southern, Inc., Anderson, S. C., is a typical example of such an installation. The opening room was moved to a separate building across the street from the card room. This move made a new lap handling system imperative, for it was not practical to transport laps by truck across the street from one building to another.

Jervis B. Webb Company installed the overhead conveyor which consists of a continuous rail, and which runs overhead from the pickers in the opening room, across the street, into the card room, then back again to the opening room. A chain, supported from the rail by rolling hangers, is driven continuously at the rate of a few feet per second. At five-foot intervals, steel wire hooks are attached to the chain, and the hooks are shaped so that they will support a lap by the rod which runs down the center.

In the opening room, laps are lifted from the pickers as they are completed, are weighed on pan scales, and then they are placed on conveyor hooks as they move by. When the laps reach the card room across the street, they are removed from the conveyor as needed to load cards. Any laps not removed continue on their journey and go back through the opening room and make another circuit. This system acts not only as a conveyor but as storage for laps in excess of those required to feed the cards.

W. M. Carlisle, division manager, Textron Southern, Inc., stated that this is a reliable system which has given good service with practically no maintenance since it was put into operation.

Covering for Pipe in Weave Room Stops Moisture Condensation

case 66

ROANOKE Mills Company's Plant No. 1 needed a larger supply of water for the dyehouse. Additional facilities had to be provided. In this instance there was a choice of a short run of 6-inch pipe for about 115 feet straight across a weave room ceiling, or a longer underground run of about 450 feet around the buildings. The short line across the weave room was chosen with the thought that anti-sweat insulation would check condensation on the outside of the pipe.

Within a few days after application, the anti-sweat insulation was soaked, and water began to ruin warps on the looms below; the floor was wet; and the weave room overseer was confronted with many problems.

Tests revealed that the 6-inch pipe containing water at 40 F was installed in air ranging from 85-90 F and 90-95 per cent relative humidity, the job having been completed during winter months. Johns-Manville engineers were called in for recommendations to cure the trouble. Their recommendation was Standard Brine Rock Cork pipe covering 3.19 inches thick plus loose materials for flanges and fittings.

The Rock Cork covering was

purchased as specified, and the mill maintenance force made the installation. One day was required to lower the humidity and temperature in the room to a point where the pipe could be kept dry. By carefully following the application instructions a good covering job was done, and now there is no condensation on the pipe.

Continuous Supply of Chilled Water for Dyeing is Economical

case 67

A CONTINUOUS and economical supply of chilled water, necessary for certain dye processes, is being achieved by the use of self-contained water chilling equipment and a chilled water storage tank in the Cross Cotton Mills Company plant in Marion, North Carolina. The equipment was made by the United States Air Conditioning Corporation.

The mill, which manufactures quality double carded and combed knitting yarns, dyed and bleached, has installed a 20-ton RKC packaged water chiller unit, which contains in a single casing the compressor, refrigerant water chilling section, and evaporative condenser.

It is operated in conjunction with a 5,000-gallon chilled water storage tank to spread the load on the chiller, thereby enabling the use of a smaller refrigerant unit than would otherwise be needed.

Water in the storage tank is maintained at 35 F and is piped to the plant's dye machines where low temperatures are required to prevent foaming with the use of certain dyestuffs.

Before the installation of the new equipment, ice was purchased from a local plant and broken into small pieces at the mill for water chilling. Aside from the labor required by this system, difficult scheduling problems were encountered for dyehouse operations. The dye plant operates continuously from Monday morning to Saturday night and was unable to run those processes requiring chilled water during night shifts because ice was not available during those hours.

HANDLING EASY WAY is done with this wool lift.

Automatic Wool Bale Conveyor Saves Time and Labor

case 68

THE problem at one large eastern mill was how to improve wool bale handling from receiving platform at second floor level to the bale opening department on the sixth floor. The bales weighed 600 lb each, and the mill had been using a platform freight elevator to raise the bales the 64-ft vertical distance.

The platform elevator had to handle other freight between the various floors and was frequently already in use when needed to transport bales of wool, thereby delaying men with the truckload of wool. It was necessary to move the bales a considerable distance by floor truck from receiving platform to the elevator; this also required extra time and labor.

The problem was solved by installing a Link-Belt rigid bracket arm elevator-conveyor. The conveyor was inclined about 35 degrees from the vertical and equipped with two strands of endless steel bar link roller chain to which rigid iron arms or finger trays are secured at 16-ft intervals.

The unit is powered by a 15 hp electric motor through a Link-Belt enclosed herringbone gear drive and encased roller chain to the conveyor head shaft. Conveyor speed is 63 fpm and handling capacity is 240 bales per hour. No maintenance or attendance is required except to press the start-stop button when service is required.

Mark Fabric Defects with Pressure-Sensitive Tape—Save Hands

case 69

IMPERFECTIONS in fabrics at Hicks Hayward Co., El Paso, Texas, are marked by Permacel 71 tape because the tape is easy to apply, sticks to the material, and pulls off lint-free after correction has been made.

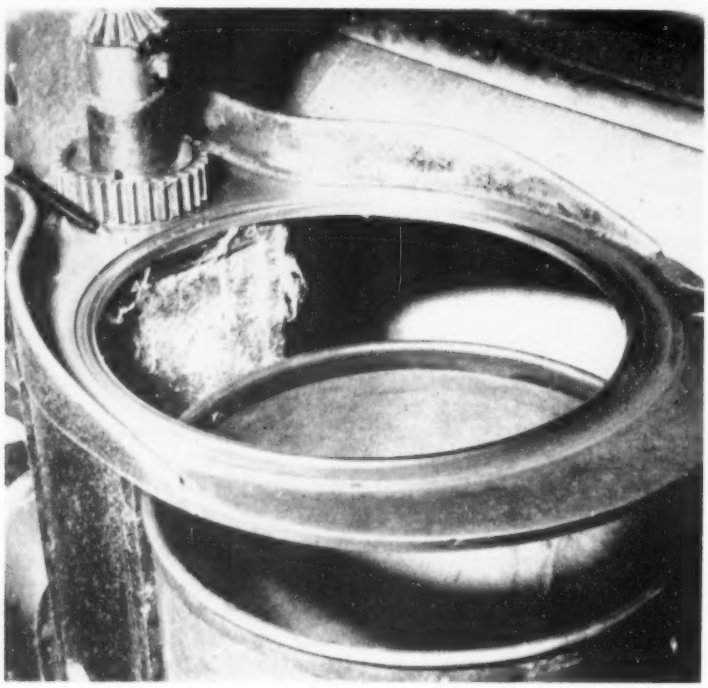
Formerly other methods of marking imperfections presented problems by producing pricked fingers, sore thumbs, frequent visits to the dispensary, and many

CASE HISTORY REPORTS

wasted man-hours. Since this plant started using Industrial Tape Corporation's Permacel 71 the cost of finished goods at Hicks Hayward has been reduced considerably, and one of their most annoying manufacturing headaches has been removed.

Screw Latch for Door on Upright of Coiler

case 70



PENCIL in upper left of photograph points to head of stovebolt which holds upright door closed.

THE DOORS on coiler uprights have a habit of coming open. The latches on them are not satisfactory, and any vibration will loosen them so that the door swings open, exposing the upright gearing to lint and dirt. In many mills, operators solve the problem by tying the doors closed with string or wire.

At the White Oak Plant, of Cone Mills Corporation, Greensboro, N. C., the problem has been solved in a much neater and more satisfactory manner as the result of a suggestion made by Ephriam L. Ingold, an employee in the carding department.

In accordance with Mr. Ingold's suggestion, a hole was drilled down through the top plate of the coiler head into the door on the upright. The hole in the top plate was then reamed to a larger size, and the hole in the door was tapped to accommodate a flat headed stove bolt. Then the hole in the top plate was countersunk so the stove bolt would sit flush with the surface of the top plate.

When the stove bolt is screwed in place, the door on the upright is fastened closed and may not be opened without removing the bolt. Not only does this keep the door closed and assure that lint and dirt are kept out of the upright gearing, but it stiffens the mounting of the top plate on the upright.

All of the coilers in the White Oak Plant have been modified in accordance with Mr. Ingold's suggestion.

To Our Readers

You have just finished reading the special section on Modern Production Methods, wherein a number of mill installation equipment performance reports was presented.

This type of issue has appeared each February since 1949, so it is our fifth.

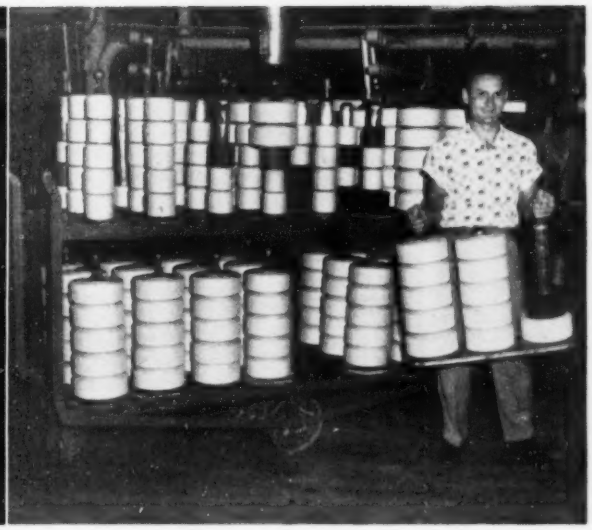
If you find this issue valuable, please turn to page 232 and check and mail the postage free Handy Return Card. It will be helpful to the editors.

If you don't like this kind of special issue, there's space for you to tell us that too—at our expense.

Many thanks.

THE EDITORS

ROUGH ON CHEESES was the old truck. They had to be lifted off the supporting pipes and carried to the slasher creels.



EASY ON CHEESES is the new truck. The system permits operator to carry more cheeses without danger of dropping them.

Slasher room employees suggest a

Better Method for Handling Yarn

Less yarn is damaged and operatives can carry more cheeses with greater ease since new type of mill-made truck and special racks are used.

Staff Prepared

EXCLUSIVE

THE SELVAGE YARNS which go through the slashers at the White Oak Plant, of Cone Mills Corporation, Greensboro, N. C., are taken from cheeses mounted on creels on the slashers. These cheeses are brought down from the winding room to the slasher room on a special truck.

The truck which was used until a few months ago was a four-wheel, flat bed truck with a series of pipes mounted vertically on the bed. Cheeses were stacked on these pipes, and were held securely in transit. However, on reaching the slasher room, unloading was awkward. The operator had to lift the cheeses off the supporting pipes and carry them in his arms to the creels on the slasher. The cheeses frequently slipped and fell during this operation, and not only did they get dirty on the floor, but they often rolled under the beams on the slashers and tore up the warps.

Roy Anderson and Ralph Medley, both employees in the White Oak slasher room, designed a new type of truck and special racks for carrying the cheeses to the slasher creels. They submitted the design as an idea in the Cone Mills suggestion system, and were awarded a check in appreciation of their efforts.

The new truck is a double decker, and instead of having the vertical pipes mounted on the truck bed, the uprights are mounted in groups of three on separate boards. To unload the truck, the operator picks up a board at a time, as shown in the photograph, and carries the mounted cheeses to the creels. The cheeses cannot fall off the boards, and the operator can carry more cheeses with greater ease than with the old system. The new method is, in other words, easier on both the operator and the cheeses.

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Leading tax authority analyzes the problem—

Opportunities for

BY JOHN W. HANES

HIGH TAXES are always painful to every sector of the economy but they are especially damaging to new and growing business. Hence, some sections of the country even more than the rest of the nation have a direct stake in Federal taxes and tax policies that hamper business growth and activity.

Moreover, restrictive tax policies have more than regional interest. Admittedly, the biggest problem to be faced by the new National Administration headed by President Eisenhower is the Korean war and the general international situation. But it is likewise true that our national security depends on the productive strength that has won us victory in two World Wars. In other words, we must maintain the strong national economy which is essential to long-term victory over Russia in both the hot and cold wars. Sound fiscal policy in the Federal government will go a long way toward keeping our economy strong enough to meet all aggressive threats.

Unfortunately, we do not at present have a sound Federal fiscal policy. Excessive expenditure is one Federal shortcoming, but I am concerned here primarily with taxes. Few people seem to realize that *the present total tax burden is greater than at the peak of World War II. In fiscal* 1944, *the Federal government collected* $44 *billion. In fiscal* 1953, *revenues will reach an estimated* $69 *billion.*

Nor is the outlook less grim on an individual taxpayer basis. In just three years, between 1949 and 1952, the tax liability of low income taxpayers increased some 30 per cent. It is no wonder that a $3,500-a-year man today pays almost a third of his income in direct and hidden taxes. And in the top income brackets, the tax collector takes as much as 92 cents of every extra dollar earned.

Similarly, corporations today find themselves paying up to 82 cents of every dollar of profit to the Federal government. Between 1949 and 1952, the tax liability of a small corporation with a net income of $25,000 jumped 30 per cent, from $5,750 to $7,500—not including any possible excess profits tax. Similarly, a company with a net income of a million dollars had a 35 per cent increase in tax liability, from $380,000 to $514,500—again not including EPT.

The so-called excess profits tax itself is perhaps the greatest single tax barrier to the kind of strong, expanding economy we need to face up to international aggression. In this connection, it is important to remember that not only the U. S. A. but the whole free world depends largely on our productive strength.

In this article—No. 3 in a series on problems of business and government, written exclusively for the W. R. C. Smith publications—a recognized leading authority on Federal taxes and tax policies outlines the opportunities for tax reduction and more equitable distribution of the tax burden.

Tax Reduction

Chairman, Tax Foundation

JOHN W. HANES, native of North Carolina, is one of the nation's most noted finance executives and tax experts. He is currently a chief executive of United States Lines Co., Olin Industries, Inc., Ecusta Paper Corp., and director in many other corporations. He was Under Secretary of the Treasury during 1938-1940.

Business has been operating under the Excess Profits Tax Act of 1950 for nearly two years. Actual experience has underlined the validity of the strong arguments made against the tax when it was proposed. The major argument against EPT, borne out by many case histories, is that by severely penalizing small or growing companies the tax inevitably retards the expansion of the economy. Let me give you one example, without identifying the company any more than by saying I can vouch for the accuracy of the example.

Here was a company that was planning as early as October 1948 to enter an entirely new manufacturing field. Its parent corporation was legally committed to enter the new field on November 4, 1949, while the legally-binding contract was assigned to the company on March 6, 1950. Because of the way the EPT law was written, any profits on the new operation would be taxed at a rate of 82 cents on every dollar. The supposed over-all tax limitation of 70 per cent on any corporation would provide no relief whatsoever.

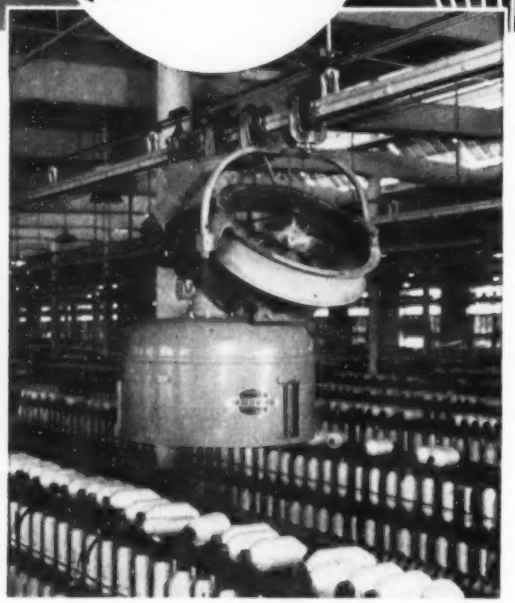
This places the company in a position where it is virtually impossible for its new operation to survive, since its competitors were manufacturing the same product throughout the entire base period and therefore enjoy a normal excess profits credit. Since the inequities of the excess profits tax are not limited to this company alone, what is happening to all the other corporations which have been responsible for the tremendous industrial growth of the country? It is plain, indeed, that taxes and tax policies of the Federal government threaten the economic progress of the nation.

Here is another case to show how the excess profits tax throttles industrial improvement. An oil company made a study involving the installation in its refinery of two new processes which had been developed in its laboratories. The company found the total investment would be about $15 million. On a tax-free basis, the investment would pay for itself in about two years. The investment would have been a risk worth taking if the invested money could be returned in two years. Unfortunately, the oil company was operating in the excess profits bracket which meant that 82 cents of every dollar of profit from the new investment would be taken in taxes.

Instead of the proposed improvement paying for itself in two years it would require more than eleven years. This factor made the risk too great because of the possibility that a better process within three or four years would make the proposed improvement

AMERICAN MONORAIL *Automatic Cleaners*

SAVE LABOR • IMPROVE YARN PRODUCTION



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obsolete. Instead of paying for itself, the investment would very likely result in a substantial loss. At best, it wasn't worth taking the chance.

Thus the excess profits tax not only handicaps industrial expansion but also places a great barrier in the path of industrial research and development. As one research engineer put it, "a research and development organization must be a bunch of magicians to overcome so serious a handicap as imposed by our income tax laws."

The arguments against the EPT are endless. The tax strangles productive effort by effecting a tax-orientation of management. Removal of the profit motive as an incentive to cut production costs and avoid waste and extravagance results in managerial decisions not wholly based on sound business consideration. In other words, a company is inclined to be less careful about what it does with 18-cent dollars (after EPT) than it would if it could keep a larger slice of the profit dollar. At the same time, this factor contributes to inflation by exerting an upward pressure on prices, stimulating competitive bidding for scarce manpower and materials, and encouraging debt.

Finally, from a purely mechanical standpoint, experience demonstrates that EPT is difficult to administer and does not provide adequate relief in inequitable cases. Besides increasing the accounting burden, controversy, litigation and cost of compliance, EPT makes extensive research necessary in economics, business, and related subjects in order to settle tax liability. The complexity of the EPT keeps tax-writing committees of Congress busy making changes in the basic law. The Revenue Act of 1951 alone made 23 technical and structural changes in the Excess Profits Tax Act without dimming the cries against EPT injustice.

The result of such patching and amending is not one broad excess profits tax law for the whole corporate economy, but a series of individual excess profits tax provisions for specific industries. Every month that passes brings to light more and more EPT inequities. The eventual outcome can only be a law that is nothing but a hodge-podge of special provisions.

Few people seem to realize that for the second successive year, business profits after taxes declined in 1952. In other words, while employment is at a peak, while individual incomes increase, while virtually every segment of the economy is increasingly prosperous, business and industry show declining profits. Here are the figures:

ANNUAL RATE OF CORPORATE PROFITS
(Billions)

	Before Tax	After Tax
1950	39.6	21.2
1951	42.9	18.7
1952 (1st Half)	41.2	17.5

When we consider that national security itself depends on maintenance of our productive facilities, the decline of profits in our incentive economy becomes doubly dangerous.

Since this is true, and since it is likewise true that the individual taxpayer is intolerably hard-pressed, is there any possibility of tax reduction in the near future? I believe there is. An essential part of any tax reduction program, however, is a simultaneous effort to cut Federal expenditures, which are the long-run key to the tax problem. It seems fairly evident that the new Administration and the new Congress will labor this year to make sizable reductions in wasteful and unnecessary Federal spending.

On the assumption that expenditures will be reduced, I believe we can go ahead with a program to ease the unprecedented tax burden that is handicapping the full development of our productive capacities. It is my conviction that we should let the most recent tax increases die on their expiration dates something as follows:

The Excess Profits Tax Act should most certainly be allowed to expire when its current authorization ends on June 30, 1953. It is significant that many economists in and out of government see the possibility of a recession beginning about the same date. Nothing would give business a better boost than the end of EPT.

The most recent 10 or 11 per cent increase in the individual income tax is due to expire on December 31, 1953. Since the individual needs as much tax relief as corporations, we might let the individual increase expire on schedule—or even better, move the expiration back to June 30 so that both the corporations and individuals receive relief at the same time.

Next recent tax scheduled to expire is the 5 percentage point increase in the corporate income tax, due to end April 1, 1954. That also should be allowed to die on schedule, along with the most recent increases in excises which are due to expire on the same date.

Expiration of these taxes would result in an estimated loss of about $2 billion in Federal revenues for fiscal 1954. For a full year the estimated loss of revenue might be about $8 billion. If the budget is to be balanced in fiscal 1954, these tax cutbacks mean that expenditures must be about $10 billion less than estimated for the present fiscal year (1953). Such a goal certainly is not too much to expect from an Administration and Congress elected at least partially because of its program of economy in government.

Moreover, in discussing estimated revenue losses from these tax reductions, we should remember recent tax history which indicates that revenue losses due to tax reductions frequently are not as bad as they are painted. The Revenue Act of 1945, which was expected to reduce individual income tax collections by $2 billion in fiscal 1947, resulted instead in a $1.5 billion increase. The Revenue Act of 1948, which was expected to reduce collections by more than $4 billion in fiscal 1949, actually brought individual income tax collections down by $3 billion.

The same thing seems to have happened in Canada, where there have been tax reductions in all the fiscal years 1946 to 1951. In many cases, actual receipts increased instead of going down, despite the

SUNOTEX PROCESS AID SAVES $4,000 A YEAR

A mill making fine-quality woolen fabrics was well satisfied with the process aid it was using during the picking operation. But a Sun representative pointed out that Sunotex WO-410 could do an equally good job at a substantial saving. It was decided to run production tests.

These proved so convincing that the company changed to Sunotex WO-410. In the six years that have passed, this process aid has saved about $4,000 yearly. In the meantime several other process oils have been tried out to keep the mill abreast of progress. But none could match the Sun product. Those which performed as well were far more expensive, and those which were cheaper proved inadequate. Recently the plant superintendent said: "Sunotex WO-410 has performed with 100 percent satisfaction during the entire period of use in our plant and has definitely proved to be the least expensive process oil that will do the job properly."

For complete information on Sunotex WO-410 and other Sun process aids for the textile industry, call your nearest Sun office or write SUN OIL COMPANY, Philadelphia 3, Pa., Dept. TI-2.

REPLACES COSTLY AID. The process aid formerly used by this manufacturer of fine-grade woolen fabrics did a satisfactory job. The company switched to Sunotex WO-410, however, after a production test proved it could equal the performance at almost half the price.

MIXES WELL. By adding Sunotex WO-410 to warm water and agitating vigorously, the mill easily obtains a very stable 4:1 emulsion. This means uniformly even application of the Sun process aid and unvarying fiber protection.

SCOURS OUT COMPLETELY. No Sunotex WO-410 remains after scouring. Therefore finished cloth is never "cloudy," never has a disagreeable odor. Also, the scourability of Sunotex assures level dyeing.

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fact that sizable reductions in rates were being made. In the other cases, the actual revenue reductions were much less than the anticipated revenue effects of the tax reductions.

It seems evident from this recent fiscal history in the U. S. and Canada that the mild tax reductions here proposed may well have the long-run result of increasing revenues rather than reducing them. I emphasize that "mild" cutback because the relatively minor tax reductions listed here are only the beginning of what must be done to ease the present intolerable tax burden. As soon as humanly possible, these first tax cuts should be followed by others across the board to enable the U. S. economy to operate with a minimum tax burden and thus produce all the wonders of which it is demonstrably capable.

Accompanying this general reduction in the tax load should be a careful program of tax revision. Imbedded in the present hodge-podge of tax statutes and regulations are provisions that strongly hamper capital formation by weakening the incentives of potential investors. A man is unlikely to risk his savings in a new business if the tax laws seem organized to take away most of any profits he happens to make. He is more likely to put his money in "safe" bonds or in a savings bank. He doesn't gain much but he doesn't lose either, he thinks. On the other hand, the national economy suffers because the U. S. needs these savings to start new businesses, expand production, and make jobs.

An average of $11,000 of capital investment is needed to create a single industrial job. Since some 800,000 young people enter the labor force every year, we can get an idea of the new investment needed annually.

There are many needed revisions in the tax laws to encourage risk capital but here are several that stand out:

"Section 102" of the Internal Revenue regulations. This section imposes penalties on corporations found to have accumulated reserves in excess of "reasonable" needs of their business. Many corporate managements are in constant turmoil over the uncertainty of a large penalty tax under Section 102, should they be unable to prove to the satisfaction of the internal revenue agent the propriety of their current dividend policy. Moreover, many corporations, attempting to avoid trouble under Section 102, feel impelled to pay such heavy dividends that adequate reserves for ordinary business precautions are dissipated.

The minimum that should be done with Section 102 is to shift the burden of proof so that the Treasury must prove that the dividends are "unreasonable" rather than force the taxpayer to prove they are "reasonable." Another good change would be to permit profit from capital gains, now included as income for purposes of Section 102, to be exempted from the penalty tax if they are long-term gains.

There is a second and very important way in which tax revision can generate new capital. This is the matter of depreciation. Everyone admits that the present method of dealing with depreciation is unsatisfactory. Treasury policies on depreciation are a direct handicap to new risk capital. The tools of industry are wearing out at a greater rate than they are being replaced because corporations must follow restrictive and archaic depreciation schedules. Corporations tend to keep their older facilities in operation instead of modernizing them, since they cannot afford to discard older tools and facilities until they are completely depreciated.

At the same time, the whole process is wasteful because of the tremendous sums the Bureau of Internal Revenue spends checking depreciation allowances to corporations.

There is a relatively simple solution which would bring up to date the depreciation practices of the Bureau and cut down the waste motions of its engineering division, not to mention the annoyance and expense to the taxpayer. That solution is to permit corporations to set their own depreciation rates, within limitations. The limitations would be two: first, that depreciation rates be no higher than 20 per cent; and, second, that corporations stick to their schedules, once these are established.

This solution would have the additional merit of not only dispensing with a large part of the engineering division of the Bureau of Internal Revenue, but would save a huge amount of time as well as legal and accounting expense to the taxpayer.

Should we adopt this broad principle of dealing fairly with depreciation, neither the Treasury nor the taxpayer will be the gainer or loser in the long run, but the economy as a whole will gain tremendously. Management will then be free to use its own judgment and initiative in expanding production and creating more jobs.

Finally, a prime area for tax revision is the most important deterrent to the formation of new venture capital, the double taxation of dividends. Perhaps because it is so basic, the problem of double taxation of dividends is more difficult than most. Nevertheless, it must be the long-term aim of any adequate tax revision program for the encouragement of risk capital that double taxation of dividends—once in the form of a tax on corporate profit and again when the stockholder pays his income tax—be eliminated.

Apart from these specific tax revisions, there needs to be a restatement of the entire tax law in shorter, more intelligible terms. For all the predictable future we shall need relatively high taxes to pay for national defense expenditures. A new Congress should seize the opportunity to overhaul the tax system and put it in shape for the heavy costs ahead. Taxes will always be painful for the taxpayer but they need not be as destructive to economic expansion and to individual incentive as the present hit-or-miss tax system.

The demonstrated demand of the American people for lower taxes and less wasteful Federal spending, plus the great need for extensive tax revision, is a great challenge to the new Administration and the new Congress. This challenge can be met if the people of the nation insist that it must be met.

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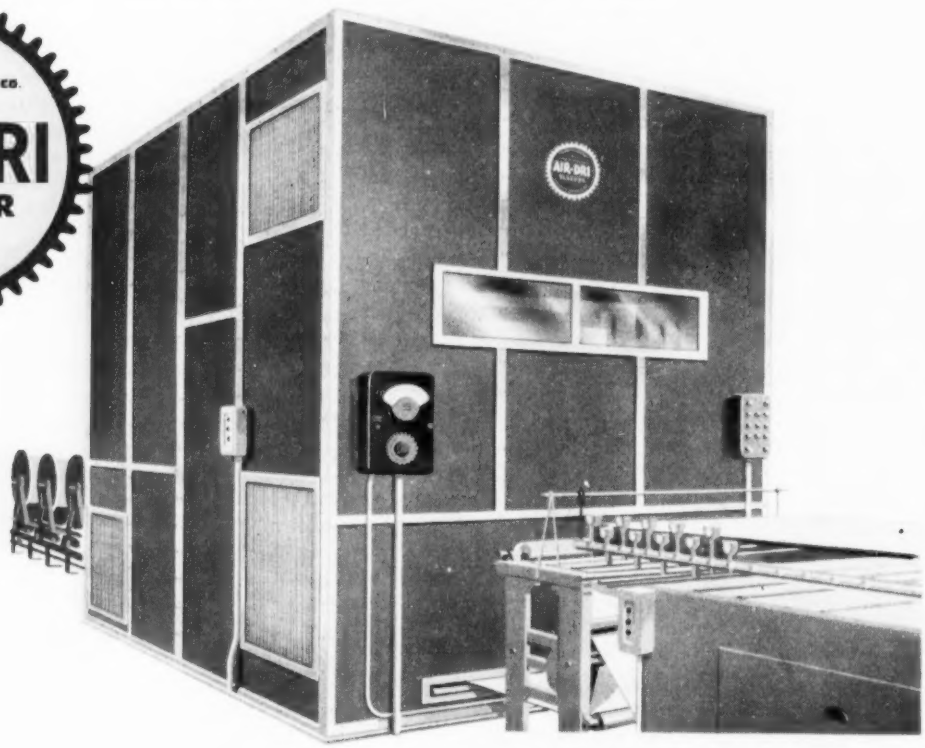

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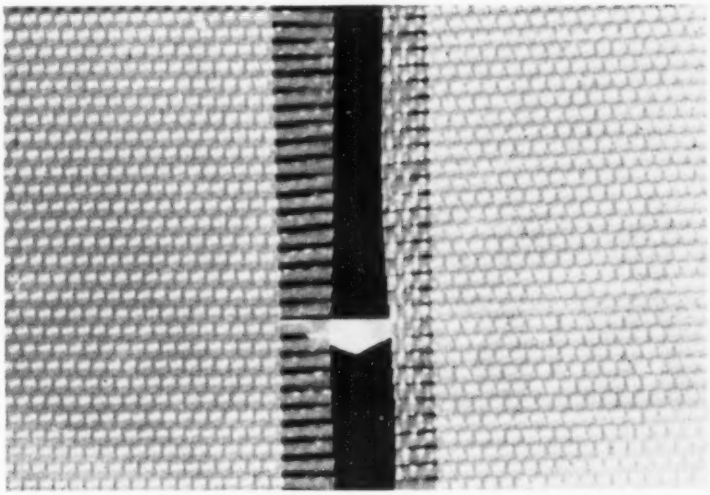
Regular Continuous Filament Nylon Filling →



← ***Crimped Continuous Filament Nylon Filling***

FILTER FABRIC produced with 6-ply continuous filament nylon and a counterpart in which the filling yarns were Textralized filament nylon. The filling portion represents roughly 40 per cent of the weight of the fabric. This is a maximum construction fabric of 11.5 ounces per square yard weight and has a warp and filling count of 51 and 25 respectively.

Spun Yarn Effect With Filament

FILAMENT YARNS have been made to behave like spun yarns by the Textralizing process. The elimination of spinning synthetic staples for certain constructions has become a real possibility. Visualized are such improvements as:

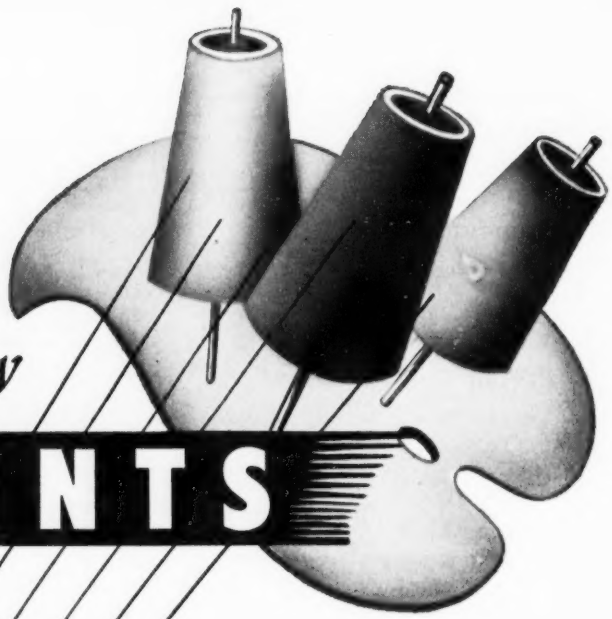
- **► rain resistance of filament fabrics;**
- **► improved warmth of coatings and suitings;**
- **► greater bulk and abrasion resistance in shirtings and work clothes;**
- **► improved pile fabrics;**
- **► a host of other applications resulting in low cost, high value fabrics for the consumer.**

FILAMENT YARNS are a convenient media for producing economical, uniform silken and sheer effects. However, where bulk, resilience, and soft hand are desired, spun staple has predominated. If filament yarns could function in a manner analogous to spun yarns, then the burdens of high cost, and tricky uniformity controls imposed by the spinning process can be sidetracked.

The Textralizing process accomplishes this effect with a wide range of synthetic filaments. The principle involves the use of the stuffer crimper in conjunction with setting agents of various types. The stuffer principle avoids subjecting yarns to mechanical stresses which may cause filament breakage.

Operating at speeds ranging from 100 to 500 yards per minute, the cigarette-package-sized crimper can be interposed at the first winding step in normal mill processing. Here's how the crimper operates: Continuous filament is fed into a restricted chamber at controlled back pressure. The yarn is crimped between the nip of the feed rolls and the previously stuffed yarn, setting up a column action in a very short element of the filament. As it buckles, electrically applied heat permanently

Prepared from a paper entitled "Continuous Filament Crimping" by Leo W. Rainard, Director of Research, Alexander Smith, Inc., at the annual meeting of the Textile Engineering Division, A. S. M. E.



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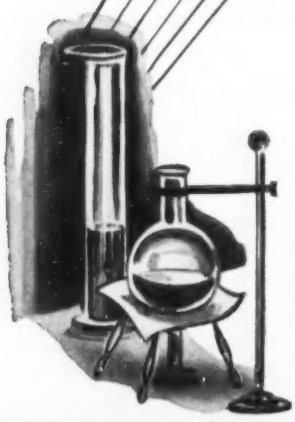
SOLUTINTS are a series of fugitive tints that provide identification, lubrication, and improved processing of all natural and synthetic fibres. In addition to giving maximum tinctorial strength — SOLUTINTS combine controlled moisture retention with improved scourability.

Have the Borne, Scrymser representative give you all the facts. You'll find for low cost operations that SOLUTINTS are second to none.



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sets the thermoplastic fibers in this contorted shape.

Used on a Roto-Coner, the crimper operates at 550 yards per minute with appropriate threading and control devices at no extra labor load. Mechanical operating costs for heat and maintenance of equipment run to a fraction of a penny.

If a 30s worsted staple nylon and a corresponding 200 denier Textralized nylon filament yarn were compared, the spinning cost for the worsted would be computed at between $.75 to $1.00 per pound as compared to $.002 per pound for the Textralized filament. As counts get finer, spinning costs per pound climb rapidly, whereas the cost of Textralizing filament mounts very slowly as extra charge where the crimper is introduced in one of the winding operations.

► Fiber weight savings plus improved functional properties have been demonstrated by the use of Textralized filament in a 6-ply nylon filter fabric. In going from uncrimped to crimped filament for this type of fabric, permeability and abrasion resistance are unaffected, and a reduced amount of fiber is required to meet minimum specifications.

► In knit goods applications Textralized filaments were found to be bulkier than their spun counterpart. A crimped yarn

Man-Made Fiber Production Capacity to be 24% Greater by 1954

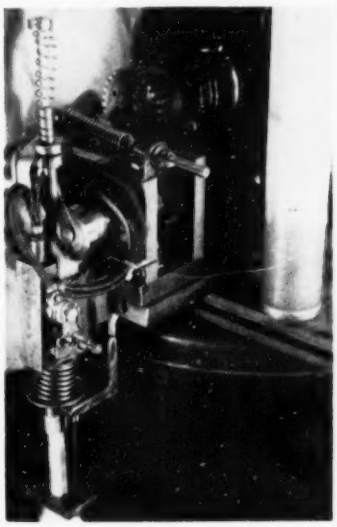
By October of 1954 the capacity of the man-made fiber industry in the United States is expected to be increased by 24%, according to the December 1952 issue of the "Textile Organon." A recently completed survey of the industry by the Textile Economics Bureau reveals the following:

Man-made fiber industry capacity as of November 1952 totaled 1,838,000,000 pounds on an annual basis of 52 weeks. By July of 1953 the industry's capacity is expected to increase to a total of 2,056,000,000 pounds, then to 2,160,000,000 pounds in March 1954, and to a total of 2,273,000,000 pounds by October 1954.

Details of this increase in capacity by type of product are shown in a table in the publication.

Capacity means the operating capacity of the industry for producing these products under normal conditions, including cleaning and overhauling on a set time schedule. The capacity for producing rayon waste is not included.

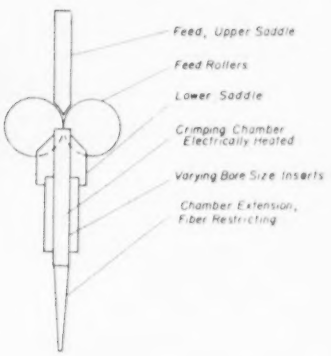
It is emphasized that this was a capacity survey and is based on data received from all producing companies; it is in no sense to be regarded as a forecast of actual production.



TEXTRALIZING MACHINE for fine denier fibers.

PHOTOMICROGRAPH SHOWS crimp formed by Textralizing. A filter fabric showed less shrinkage when Textralized, although abrasion resistance was reduced from 100 to 59.7 as measured on the Tabor machine.

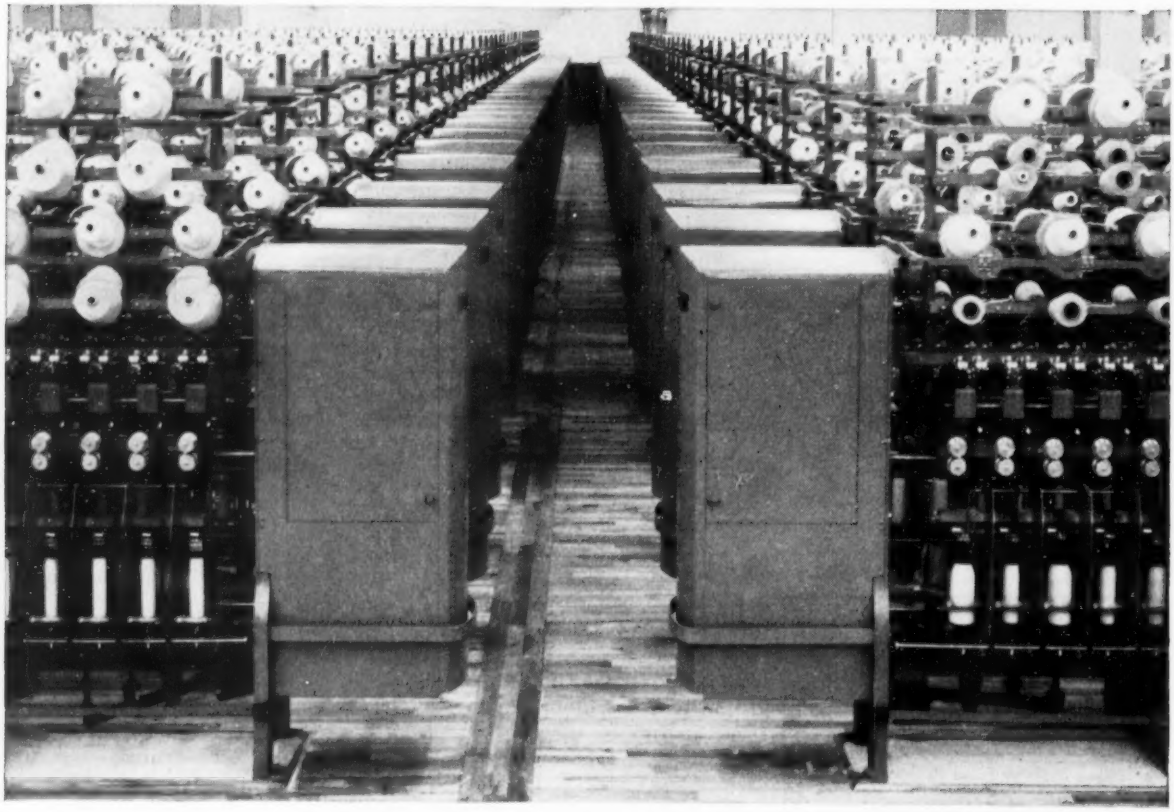
How the "Textralizing" Machine Operates



IN PRACTICE, continuous filament is fed through upper saddle and then driven by squeeze rolls into elongated chamber which has a controlled restriction at the other end. Due to restriction, yarn is stuffed into chamber at a controlled back pressure. By applying heat electrically to stuffing chamber thermoplastic fibers may be given a permanent set. The degree of heat is controlled by thermostat and heating period is controlled by speed of delivery rolls and the volume of chamber.

The act of crimping occurs between nip of rolls and previously stuffed yarn. As filament is driven from the rolls, it impinges upon previously crimped yarn and sets up a column action in a very short element of the filament. The filament buckles under this applied axial load and thus the crimp is formed and then heat set. The degree of back pressure in the stuffer chamber can be utilized to control the amplitude and frequency of the crimp. Diameter of the squeeze rolls will also regulate the amplitude to some degree due to the support given filament by apex of rolls; large diameter rolls will produce a small apex angle at nip of rolls and in turn create a relatively coarse crimp because of length of lateral support given filament column by flanks of the rolls. Conversely, small diameter rolls will have a large apex angle at nip of the rolls, lending less lateral support to filament and in turn creating finer crimp for same back pressure

Why these SELL...



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Here are a few reasons why mills are choosing the new Fletcher Master-Duplex

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Add to these HIGH QUALITY PRODUCTION and CLEAN YARNS on LARGE PACKAGES and we believe you will want to know more about the FLETCHER MASTER-DUPLEX DOUBLER-TWISTERS.

The foolproof individual thread STOP MOTION for both the single ends and plyed end is just one important feature that will appeal to you. Please contact us today and let us show you why it will pay you to buy "FLETCHERS".

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Southern Representative... F. W. WARRINGTON, Johnston Bldg., Charlotte, N. C.

weighing only 5/8ths of the spun gave equal appearance and hand. In this instance a man's sock normally made with a worsted spun yarn to weigh 16 ounces to the dozen was made up weighing 10 ounces to the dozen with Textralized filament.

► Weight savings are significant in carpet and cut pile fabrics for crimped filaments give coverage to uncrimped yarns at one third to one quarter of the weight.

► Spun-like effects have been realized with continuous filament crimped yarns which have uniformity levels far beyond anything that can be obtained in large scale spun yarn operations.

It is obvious that values obtained through increased bulk due to changes in fiber geometry must not be impaired by any critical reduction in the strength of the resulting fabric. However, bulking must be achieved at some expense of strength. For very highly crimped material the tensile loss has been restricted to 25 per cent while the normally expected tensile loss is 5 to 10 per cent. This amount is tolerable in most fiber types.

There are some problems which remain to be solved: denier control because the imposition of crimp produces low-range extensibility; more precise control of winding and package tension because of ageing or permanent set on cones, cheeses, and beams, changing denier or yarn bulk; control of secondary creep characteristics because of packaging dimensions and ageing conditions. Much has been accomplished and the possibilities are legion for crimped filament yarns.

Engineered Fabric Performance

Fabric geometry, a distant relative to plane and solid, embraces a large group of equations with one thing in common — fabric behavior. It can be instrumental in raising the level of end-use performance of a piece of cloth. Louis I. Weiner, the Quartermaster Corps' Textile Materials Engineering Laboratory chief, is one of the apostles of this new branch of mathematics. Here are some of the applications of fabric geometry, as told to the Textile Engineering Division of the American Society of Mechanical Engineers, by Mr. Weiner.

Crease Recovery. It is more difficult to form a sharp crease in long float length weaves. Plain weaves form a sharp crease because one system of yarns folds around a single yarn in the opposite system. In twills, one system folds around two or more yarns. In a five-harness sateen, the radius of curvature of the bend is equivalent to four yarns, thereby adding to crease resistance.

Water Resistance. Closely woven or plain weave fabrics resist water penetration. Tight structures decrease porosity or permeability of the fabric to water. The amount of water absorbed by a fabric is a function of its thickness, although thicker fabrics absorb less water on a weight percentage basis. Lower absorption based on fabric weight is more important to comfort than lower absorption of water based on fabric area.

Tear Strength. Tear strength decreases as tightness of the fabric increases. Tear strength is increased by mercerization, which smoothes the yarn surface as well as raises the yarn strength. Tear strength is related to strength of the yarn system being torn and inversely to the yarn pull-out force of the opposite set of yarns. Water resistance is diminished by those factors improving tear strength.

Warmth. Warmth is proportional to thickness, regardless of fiber content, while permeability is at least as important. However, heat may be transferred through wet fabrics by thermal conduction and evaporation. Demands on the body for heat to evaporate moisture out of fabric are high (600 calories per gram of water). Some moisture is condensed in the fabric and is returned towards the body by wicking action of the fibers. The additional heat transferred by a wicking system may be one and one-half times the latent heat of the water evaporated.

Coolness. Under conditions of warm weather or tropics, rapid wicking increases cooling of the body.

Felting Shrinkage and Relaxation Shrinkage. Actual migration of individual fibers takes place in felting. Increasing compactness or tightness of the fabric construction reduces the amount of free space into which shrinkage may occur. Increasing ends and picks, using higher twist and heavier yarns, reduce felting shrinkage. Other ways to obtain compactness: warp and filling of same twist rather than opposite twist; plain weaves rather than twills.

Research on Waste Reduction

Six southern textile mills have joined in sponsorship of a $31,000 research project on reducing waste in cotton carding. Work on the project is to be done at the School of Textiles, N. C. State College, under the direction of J. F. Bogden.

The project is based on a by-product result of the recent three-year research project on nep reduction. During this project a method was discovered by which it is believed card waste can be reduced by at least one third. The objective of the research project will be to explore fully the application of the method developed on a wide range of cotton varieties and staple lengths.

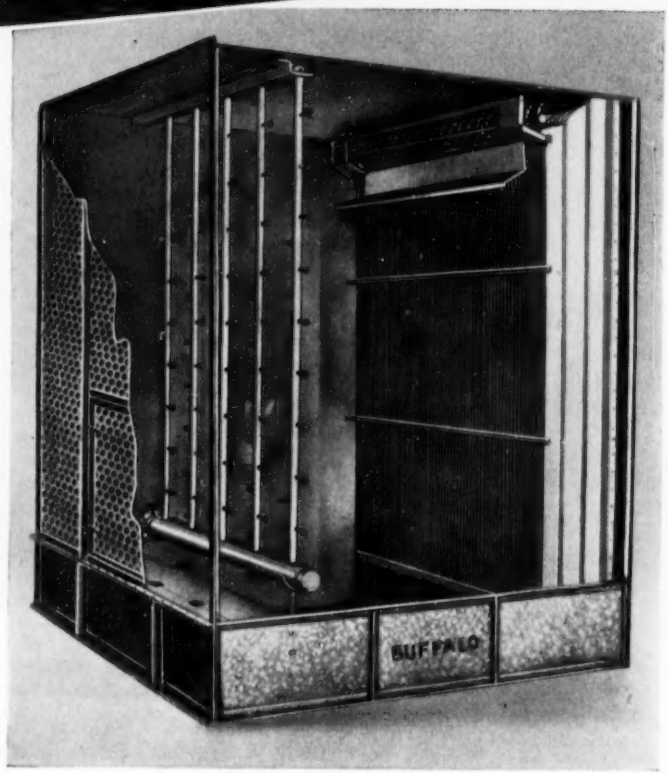
It is estimated that if the method can be successfully developed, the potential savings to the cotton textile industry as a whole will be 125,000 bales of cotton per year. It is also estimated that the savings to textile mills can be $2,000 for every 1,000 bales of cotton processed.

"Buffalo"

Tips on AIR WASHERS

What AIR WASHERS Can Do For YOU

(while washing air)



"Buffalo" Type "A" Air Washer showing spray nozzles, flooded eliminator plates and settling tank. Note close spacing of eliminator plates at right, to present the maximum scrubbing surface. Plates are easily removable for annual painting, and the complete accessibility of all parts makes periodic maintenance simple and easy. 5 types of "Buffalo" Air Washers plus Wet Glass Cell Air Washers, are ready to solve *your* particular problem. Write for details.

1. CONTROL OF DUST, ODORS, BACTERIA

Air passing through a dense curtain of fine spray, then past scrubbing and eliminator plates, not only loses a large part of its dust particles and impurities with their accompanying bacteria, but odors are controlled.

2. COOLING

The spray action of the spray type washers has an efficient evaporative cooling effect.

3. HUMIDITY CONTROL

The spray type washers naturally have a strongly humidifying effect. Where less humidity is desired, wetted scrubber plates are used, as in "Buffalo" Static Washers for air cleaning. For dehumidifying, "Buffalo" Type T Dehumidifiers have two banks of opposed sprays handling chilled water, to lower wet bulb temperature of the air.

4. DUST RECOVERY

Airborne particles washed and scrubbed out of the air are collected in a settling tank—for salvage, if valuable—or easily disposable if waste material.

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"Honeydew"

--how to detect and control it

By JOHN M. COOK*
U. S. Department of Agriculture

WHAT WE REFER TO as "honeydew" will cause trouble in manufacturing by sticking to rollers. When honeydew cotton is being run, one may find indications of it at the pickers in the form of dark brown or black spots on the calender or feed rolls. If some of the substance is removed by hand, it will be found to be rather soft and sticky. It may show up on the feed rollers at the card. Many times it may give more trouble at the drawing than anywhere else, but the comber appears particularly sensitive to honeydew. The slubber drafting rollers make an attractive place for it to cause lap-ups, particularly if there are no underclearers. Trouble has been encountered also in trying to knit yarn spun from cotton contaminated with honeydew. The needles collect a gummy substance in a short period of running, making it necessary to clean them too often for satisfactory production.

Honeydew is the secretion of plant lice, or aphids. There is a ladybug beetle which normally feeds on these plant lice. When the cotton is poisoned to kill the boll weevil or other chewing insects, the beetles are killed, and the aphids multiply rapidly unless a contact poison, such as nicotine, is included for killing them. When no poison is included for the plant lice they become so plentiful that little droplets of secretion form on the leaves. If they are allowed to continue to develop, these droplets may fall on the open cotton bolls and go on into the mill. However, the honeydew is soluble in water, and it can be washed off the cotton plant by a heavy rain, but if only a very small quantity of it is present, trouble may be encountered.

Honeydew may not be guilty of all the crimes of which it is accused. Cotton that gave trouble in manufacturing has been traced back to the vicinity where it was grown, and there had been no honeydew in the fields at any time during the growing or harvesting of the cotton. It was reported, however, that there had been some of this cotton picked from cracked bolls, or bolls not fully opened. So some of the trouble which we attribute to honeydew may be coming from other sources.

Sweet Cotton. It has been suggested that the same kind of trouble could occur from cotton bolls that crack open prematurely and do not fluff out as normal bolls should; such fiber may contain a much greater percentage of soluble sugars than normally. According to a study by Compton and Haver, in "The Contributions of Boyce Thompson Institute," the sugars in cotton fibers varied from 15.9 per cent 23 days before normal picking time to 0.1 per cent at picking time. Observations in our laboratories indicate that cottons showing 0.3 to 0.4 per cent total reducing sugars may give trouble in processing. And an article by Hoffpauir in TEXTILE INDUSTRIES, August 1952, stated that tests on several mature cottons showed that soluble sugars varied from 0.01 to 0.17 per cent. This referred to normally developed cotton.

When cotton high in sugar content enters the mill and is subjected to high humidity, the fibers become sticky and give trouble by lapping up.

First Troubles. Our first experience with "sticky" cotton at the laboratory was in the early 1940's. We received a sample from the Delta for spinning into combed yarns. At that time our regular humidity in the picker room was 50 per cent; humidity was 60 per cent in the card room. Nothing unusual showed up until the sample reached the comber although some indication of trouble occurred at the picker.

Lap-ups around the steel rollers of the comber were so frequent that the machine did not get up to full speed before it had to be stopped and one or more rollers cleared. It took between two and three hours to run enough sliver (about 2 pounds) for a spinning test.

This sample also gave trouble on the drawing and roving frames, but it was not so bad as the trouble on the comber. Later it was found that the field from which this sample of cotton came had a very heavy infestation of aphids. Since the aphid is the source of honeydew, we began to look more fully for this type of trouble.

Some time later we received another lot of cotton which gave the same type of trouble. There was no particular hurry about processing this sample, so it was left on the comber spools in the corner of the laboratory for about 2 weeks. The regular humidity was kept up in the laboratory

*Based on a paper delivered at the Textile Quality Control Association Meeting, Raleigh, N. C., October 3, 1952.

during this time. When the sample was again tried on the comber, it gave no trouble at all.

We have had several repetitions of this experience since that time, with similar results; that is, the cottons were allowed to remain in the laboratory for a short time before running, and then there was no trouble when they were processed. Some of these cottons remained in the picker room spread on the floor, and some were kept in sliver or lap form. In no case did we have trouble with processing.

This treatment does not appear to work in a mill; it has been tried without success. Even if it did work, the cotton being held would require more space than is usually available for such a purpose.

Occasionally, when trouble was being encountered by roller lapping, the lap was cut off very carefully and the cotton removed gently by hand, down to the start. Almost invariably at the first part of the lap-up there was a very small brown piece of soft material to which only a few fibers were attached. Sometimes the piece of material was almost black. Samples of this material have tested high in sugar, and we have attributed its presence to honeydew.

Reducing Sugar Content. For the past 2 years we have been making tests for reducing sugar content of samples of cotton obtained in connection with our annual studies of quality of cotton produced by cotton improvement groups. These have been made by reducing sugar content in Benedict solution and comparing the change in color with a standard color chart. In our tests we have five gradations of contamination which are designated as "None," "Trace," "Light," "Moderate," and "Heavy." Table 1 shows the percentages of the samples falling into each of the classes. We tested 241 rain grown and 84 irrigated samples in 1950, and 244 rain grown and 89 irrigated samples in 1951.

Test Results. The cotton for the 1950 rain grown crop turned out to be 67 per cent normal, and 33 per cent showed a trace or more of reducing sugar. The irrigated cottons for 1950 showed only 17 per cent with no sugar and 83 per cent with a trace or more.

The 1951 crop results were not significantly different for the rain grown cottons. Sixty-six per cent showed no sugar, and 34 per cent had a trace or more. The irrigated cottons showed 60 per cent that had no indications of sugar, and 40 per cent had a trace or more.

We do not know the exact level of contamination that would give trouble in a mill. For the laboratory the level lies between "Moderate" and "Heavy." This means that out of the 325 samples tested from the 1950 crop, slightly less than three per cent showed high enough sugar content to give trouble in the manufacturing processes at the laboratory. The same percentage of rain grown samples as of the irrigated samples gave trouble in manufacturing.

For the 1951 crop about one per cent showed the presence of sugar that would cause trouble in manufacturing at the laboratory. There was a greater proportion of irrigated samples in this crop that showed high reducing sugar content than that for rain grown samples.

From the results of these two years, it appears that a small amount of "sticky" cotton from both rain grown and irrigated areas of the Cotton Belt may be expected.

Maturity and Sugar. The data were examined to ascertain the relationship between maturity of fiber and sugar content of the cotton. The trend for each year, as shown in Table 2, was slightly toward lower maturity for those cottons showing higher sugar content, and the trend was greater for the 1951 crop than for the 1950 crop. This trend was very slight and may not be significant.

From the results given, there appears to be only a small percentage of cotton grown that is likely to give trouble due to "stickiness." It probably would be uneconomical and unnecessary to make sugar tests on all cottons

Table 1. Sugar Contamination of Cotton

Contamination with sugar	Samples of cotton for —			
	1950		1951	
	Rain grown	Irrigated	Rain grown	Irrigated
	Per cent	Per cent	Per cent	Per cent
None	67	17	66	60
Trace	24	50	20	30
Light	6	30	14	8
Moderate	3	3	0	2
Heavy	0	0	0	0

Preparation of Benedict's Copper Solution

This solution is prepared by dissolving 173 grams of sodium citrate and 100 grams of anhydrous sodium carbonate in about 800 milliliters of water, and 17.3 grams of crystallized copper sulphate in about 100 milliliters of water. The two solutions are mixed and diluted to 1 liter.

The solution is not reduced by creatine, creatinine, uric acid, or similar substances.

Test for Soluble Sugar by Benedict's Solution

Approximately 1 gram, or more, of cotton is placed in a 100-cc. beaker and wet out with 20 cc. of water. 10 cc. of the Benedict solution are then added. The beaker is immersed into boiling water until the reaction is completed. This requires from about 3 to 5 minutes.

Clinitest tablets may also be used. They give a better color variation and may be purchased from most drug stores.

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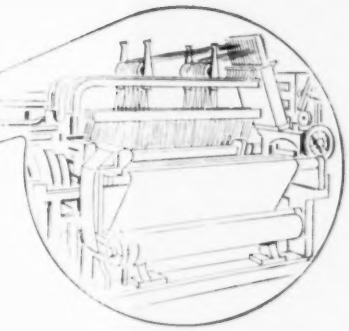

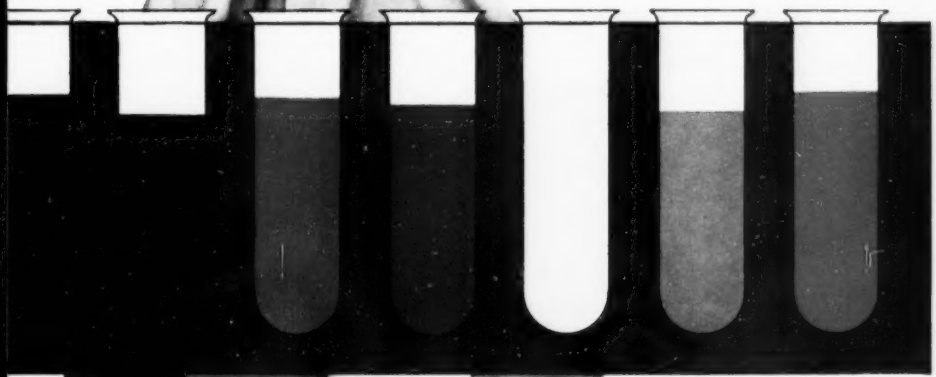

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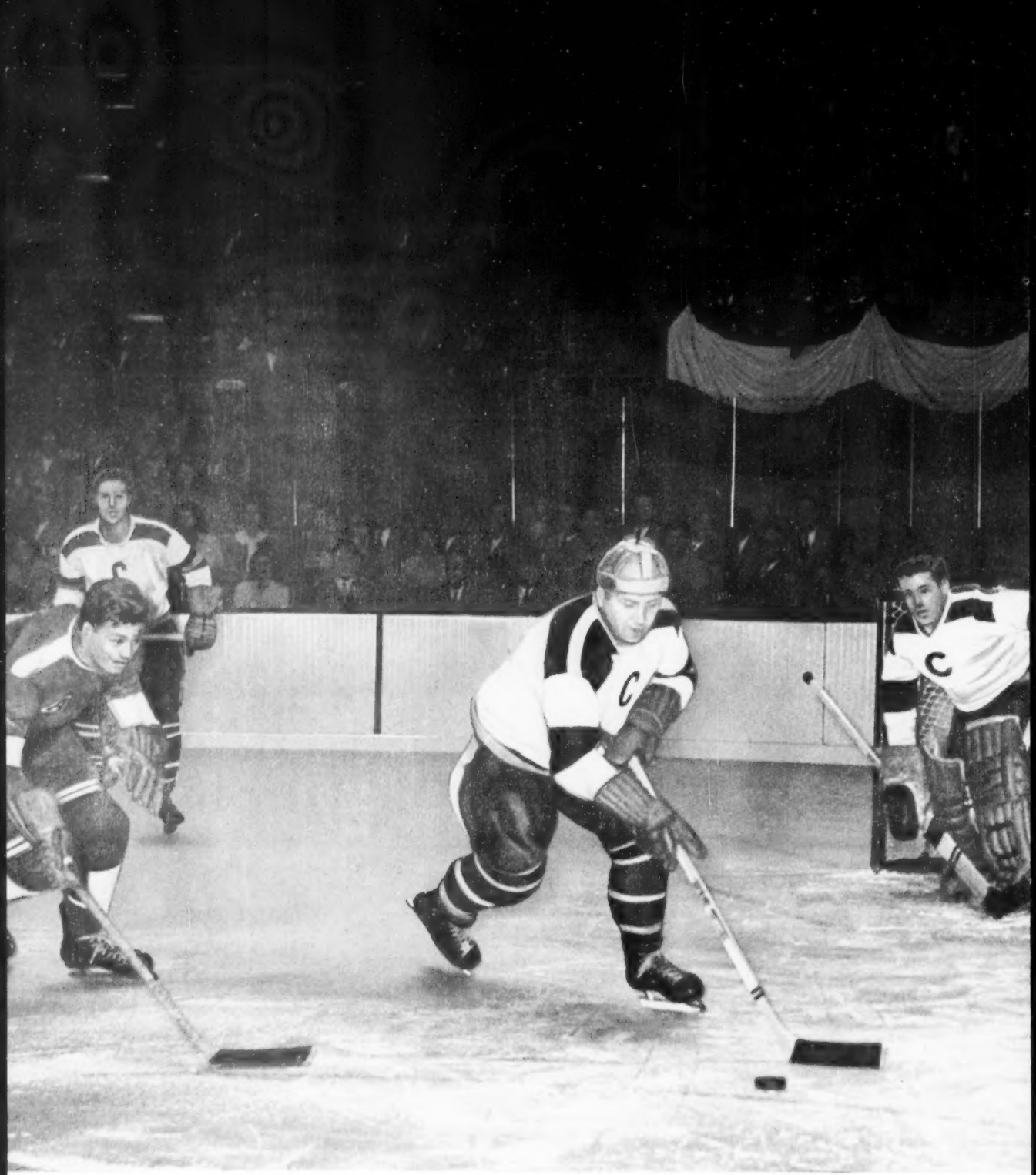

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received by a mill. If trouble does occur, or if there are any indications of trouble such as that mentioned, it is suggested that the origin of the cotton be traced to the vicinity of its growth, and then a good sample of all cottons received from that vicinity should be tested. The proportion of the mill mix of the contaminated cotton will have to be reduced to the level that can be run. If this level has not been determined, it will be necessary to start with a small amount of contaminated cotton, and then increase the proportion slowly.

Table 2. Sugar Content and Maturity

Per cent maturity	Number of samples showing honeydew contamination 1950				Number of samples showing honeydew contamination 1951			
	None	Trace	Light	Moderate	None	Trace	Light	Moderate
60 and below		1		2				
61 to 65		2	4		1			
66 to 70	7	6	1	3	4	1		1
71 to 75	16	11	4	4	8	4	3	
76 to 80	52	26	11		39	22	13	
81 to 85	70	34	13		93	33	12	2
86 to 90	29	20	7		68	15	12	
91 and more	2				1	1		

Tips for Processing "Acrilan"

On cotton, woolen, and worsted systems of manufacture. Dyeing suggestions also given.

By GRAEME G. WHYTLAW*
Textile Research Department
American Viscose Corp.

"ACRILAN" presents no static problem due to a finish developed jointly by The Chemstrand Corporation and our Department. The fiber can be run quite satisfactorily at a relative humidity of 50 to 55% at 75 to 80 F. No additional finish application is necessary unless the fiber is stock dyed before processing. "Acrilan" with a specific gravity of 1.135 is a bulky fiber which is one of its noteworthy characteristics since it gives more volume with less weight than any other commercial fiber. This bulk is something which must, however, be recognized in processing and we shall attempt to outline our recommendations which will permit satisfactory commercial processing on cotton, worsted, and woolen spinning systems.

On the cotton system, it is necessary to make some adjustments to accommodate the "bulk" property of "Acrilan." The staple opens readily and all cotton type beaters, openers, and cleaners should be avoided. A standard hopper feeder is all that is required. Either one or two-process pickers may be used and here, because of the bulk, the weight of stock should be reduced at each beater section feed in order not to overload the picker cages. Where a picker has a blending reserve box, the finisher section draft should be reduced one-third. The picker lap length should also be reduced approximately one-third.

In carding, we recommend a licker-in with No. 1 rayon type wire and a stripping cycle of about every four hours to produce a clear web. We do not suggest the use of a continuous stripper or fancy. Again, due to its bulk, we believe a 45 to 50-grain sliver is best, at a card production of 10 to 12 lb per hour. If a heavier sliver is made, difficulty will be had in passing it through the coiler tube gear.

At drawing, the sliver weight should be down to 50 grains in order not to have similar trouble. Standard drafts, settings, and roll speeds such as are common for rayon are quite satisfactory. In roving, the lay should be increased and tension adjusted here again because of the bulky nature of "Acrilan." In spinning, a twist multiple of 3.50 has given the best spinning and strength properties.

On the worsted system, stock can be fed directly to the Bramwell feed without previous picking, and no oil or emulsion or water should be added. Carding production is normal with 2 oz per 5-yd delivery, and a heavier end is not recommended due to the bulk of "Acrilan."

In subsequent operation of gilling prior to combing, delivered weights are approximately 2/3 that of regular viscose staple. The weight per end fed in the Noble comb is best at approximately 4.5 oz per 5 yd. Coarse pinning on

(Continued on page 217)

*From paper delivered at a recent meeting of the American Association of Textile Technologists.

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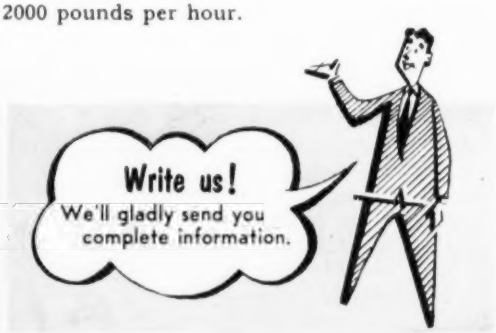

Wool Carders Acclaim Quality Control

Staff Report

STATISTICAL APPROACH in wool carding quality control is assured of permanent tenure in mills where it is now practiced. Mills operating their card rooms without any rational data accumulation and analysis system will soon be setting one up. This much became evident at the recent meeting of the Carder's Guild of the National Association of Woolen and Worsted Overseers where the supervisors heard Charles Carter, quality control engineer at Bigelow-Sanford Carpet Co., detail many indisputable advantages gleaned from scientifically applied controls.

Out of Mr. Carter's work evolved the Bigelow Compensator, a device that regulates the speed at which the broad band feed lays the web across the width of the feed apron, thereby reducing variations in roving weight. (See TEXTILE INDUSTRIES for June 1952, page 186, and December 1952, page 106.) Of equal importance is the continuing high quality roving his mill produces through this new production tool.

Collect the data according to pattern, evaluate it, and here's what you can learn about carding: short and long term weight variations in a single end of roving; weight fluctuation between ends of roving, spools, and cards; length of time for card to recover weight after stripping; how long after stripping until colors level out to commercial match; best schedule for loading feed hopper; clothing performance; proper settings; effect of adjustments or machine improvements; location of hidden trouble spots; which tapes require tightening; correct settings and speeds; and carding characteristics of various fibers and blends. No doubt there are other factors which bear investigation. A scientifically applied quality control system plus some imaginative experimentation will search these out.

Mr. Carter pointed out that: "Considerable improvement has been achieved in the basic operation of carding, a process in which for many years improvement was thought improbable. New facts presented in a concise manner were used to disprove some theories and to prove others. Shop personnel, steeped in many years of experience, were thoroughly convinced upon presentation of these data. In providing a new tool whereby quality can be controlled, the critical emphasis has been shifted from the operator to the machine and has led to a more basic understanding of the principles involved.

Some Typical Tests

Relationship of Manual Loading of Wool to Longitudinal Variations in Roving Weight. Start test by packing hopper with stock. Allow card to run until hopper is nearly empty and then refill. Note the time elapsed between packing. Using one of the resulting spools, make several hundred consecutive weighings (grains/50 yd) and plot each weight on graph paper. With grains/50 yd as the vertical axis and number of consecutive weighings as the horizontal axis, connect the plotted points. Observe the pattern.

Initial weighings are probably far in excess of standard, interim weighings dip to normal and possibly below, and final weighings climb to peak again. Repeat test several times, varying the amount of time allowed to elapse before refilling the hopper, until the plotted pattern approaches a consistently horizontal level. Feed box tenders should then conform their hopper loading to meet the proper indicated time interval.

Time Required For Weights to Approach Standard After Stripping. Immediately after a card has been stripped, make several hundred consecutive weighings off the resulting spool, noting the elapsed time since stripping. Plot each weighing (grains/50 yd) with weight as the ordinate and time (in minutes) as the abscissa. Observe the pattern. Initial weighings are below standard and gradually increase to normal, at which point they level out. The elapsed time gives the carder a reliable estimate of how soon after stripping he can allow spools of roving to proceed to spinning.

Tape Tension. With card running "as is" remove each spool (in most cases—4). In consecutive order from one end of spool No. 1 to the other end, reel off three yards and weigh each end individually (exercise care to avoid stretching roving). Repeat on other spools. Plot weighings on graph paper with weight as the ordinate and order of condenser tape as the abscissa. Note weights which fall outside limits and tighten corresponding tape. Repeat test until ends are in tolerance. Handling is simplified by making end of spool removable from barrel so that each end can be separated as a "ball" of roving, and tested individually.

A rapid-reading digest of Carder's Guild discussion pertaining to the Bigelow Compensator and other items of current interest to carding supervisors follows:

How many carding machines equipped with Compensator?

Four companies in such diversified products fields as clothing, carpets, and papermaker's felts are using it. Results duplicate those at Bigelow.

Can Compensator be used for fine work?

Function of the device is the same, regardless of stock used or weights. It will work with 6 or 7 run fine wools as well as 1 run carpet wools. *(Continued page 157)*

Are high capacity and long service life important?

here's how truck and trailer manufacturers get them with NEEDLE BEARINGS

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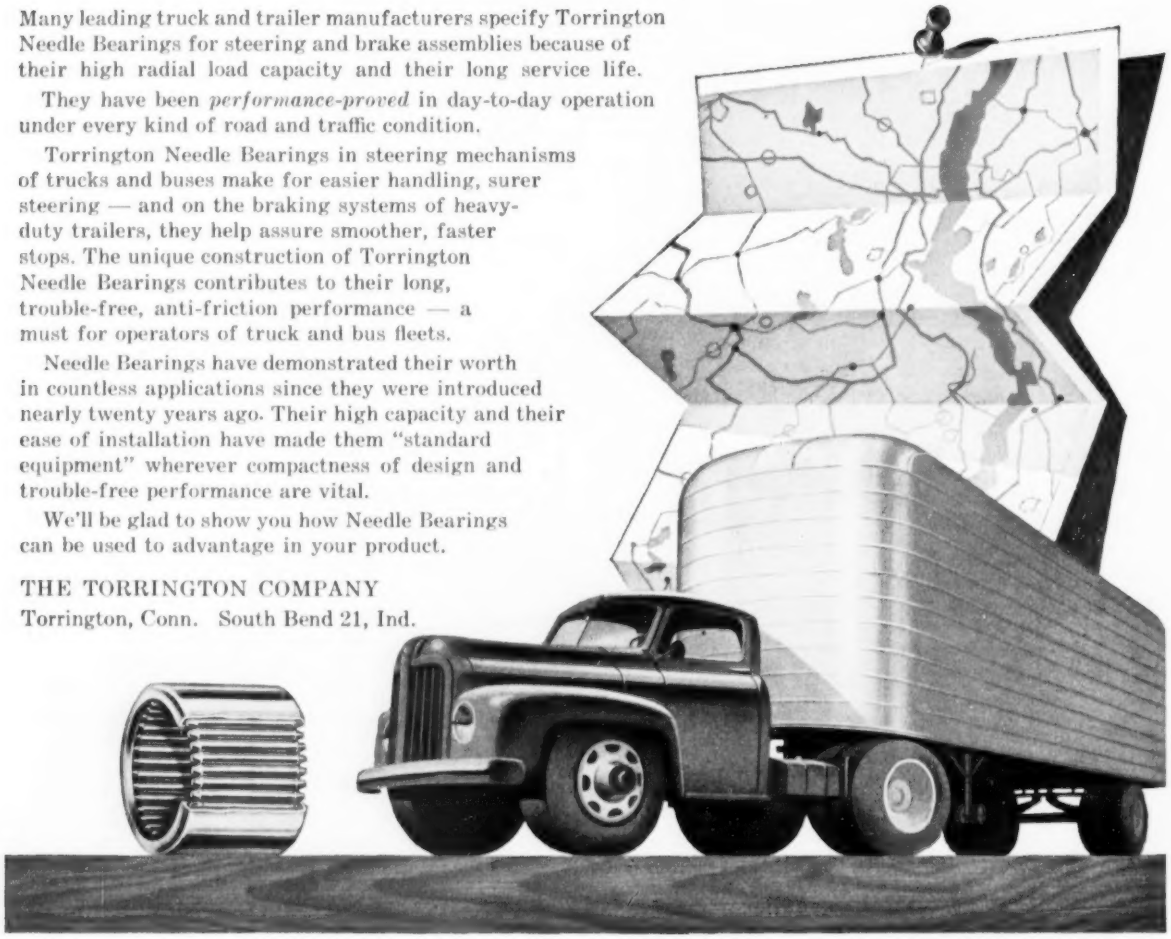

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Does condition of card have influence on Compensator performance?

Across the card patterns are identical with all cards irrespective of individual card peculiarities. Device can be regulated to correct light roving on the sides as well as heavy roving on the sides

Is Brush Analyzer suitable for card quality control?

Bigelow has not adapted the Brush Uniformity Analyzer to card room use, since the sample size for the Brush machine is minute and the test is sensitive beyond practical needs. Bigelow is interested in streaks which run the entire length of the carpet rather than two or three tufts. Application has been made in some mills with good results, according to one card overseer who reports satisfactory usage in his department.

Card feed tender assignment.

Bigelow-Sanford's card feed tenders still feed the same number of cards tended prior to the quality control test revelations of the importance of proper feeding to uniform roving weight. Foremen have the responsibility to see that box feed tenders do not overload or neglect hoppers. Personnel have been thoroughly indoctrinated with the principles involved and have a graphical picture of what happens during the carding process. Light and heavy ends which were once habitual virtually disappeared.

Effect of high humidity on card clothing.

There's no way of telling except by experience. However, whatever its effect, it is secondary to the need of high relative humidity for the carding of synthetic fibers. The general opinion is that deterioration at moderate levels of humidity (60%) is negligible. It is recommended that installation of spray nozzles directly over machines be avoided. A handy self-contained pressure can for spraying an anti-corrosion compound on machinery is available. One mill reports beneficial results.

Evener yarns in current fabrics.

Woolen manufacturers are in competition with worsted mills for the consumer dollar. Recently de-

"Bad" Microbes Cause Processing Troubles

Writing in a recent issue of the Quarterly Bulletin of Southern Research Institute, Birmingham, Ala., Edward Abrams, head of the Institute's textile section, points out that many of the problems encountered in industrial processes are due to the "bad" variety of microbes*.

In a study of spotty dyeing of cotton yarn in an Alabama mill it was found that slime bacteria present in the well water used for dyeing was the cause. Perfect dyeing resulted when the slime bacteria was eliminated by treating the water with a powerful bactericide and the sand filter and ion exchange bed were renewed.

Another project involving "shady dyeing" in a woolen mill disclosed a similar microbiological cause. In this case the organism became attached to the wool during the carbonizing process. Again renewal of the water filtration system and bactericidal treatment of the water completely eliminated the off-shade dyeing.

Cellulosic materials, such as cotton and viscose rayon textiles, are the most easily attacked by microorganisms, Mr. Abrams said, citing as an example his study of a cotton mill in which it was found that there were at least 23 cellulose-destroying organisms present in the mill.

When the cotton bales were opened it was found that at least 10% of the bale fibers had been damaged to some extent by cellulose-destroying organisms. As these fibers passed through the mill the number of fibers found to be attacked increased to almost 50%. The normal humidity conditions in the weave room were favorable to the further growth of the organisms, resulting in fabric that was weaker and less lustrous than it might have been. Addition of a bactericide to the starch bath (sizing solution) produced marked improvement in the finished fabric, both in strength and color, he said.

Additional improvement might result, Mr. Abrams suggested, if the bale cotton fibers could be treated with a bactericide.

*See article "Research Findings — Mildew Can Damage Cotton In 6 Hours," TEXTILE INDUSTRIES for June, 1952, pages 111, 115.

The Vanishing American

Watch for further collapse of solidarity among wool manufacturers as the emphasis in textiles swings from wool to blends and synthetics. In quest for consumer preferences, wool mills have become so inextricably tangled in the new fibers and their related machinery that the term "wool mill" is ceasing to be generic distinction.

This situation has created a fine problem in semantics; what should the National Association of Wool Manufacturers call itself? Recognizing the problem, Edwin Wilkinson, executive vice-president of the association, has stated: "Few will deny that today the emphasis is shifting to such an extent that the proper way of statement is *wool textile industry* (as against *wool* textile industry)."

Mr. Wilkinson, speaking before a conference of security analysts, acknowledges that: "There are still those mills in our industry which shun all fibers other than wool, but their number shrinks as does the size of the discriminating market which excludes all but the natural fibers."

For the first time in the history of the wool industry, growers and manufacturers have stood on opposite sides of the fence before the Tariff Commission — further indicating a gradual vanishing of the border line which separates wool mills from other textile mills. As fibers with increasing interchangeability are developed, so will mills of increasing versatility in machinery keep pace. Mills specializing in one fiber will find rough sailing ahead, according to Mr. Wilkinson.

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veloped worsted and modified American spinning equipment has enabled competition to produce more uniform, less expensively produced yarns out of the newer synthetics. This means that woolen mills must also increase the quality of their goods.

Spray lubricant on aprons.

Sticks and brushes for applying apron oils might disappear from the card room if the experience of one mill that has tried a pressure spray can is repeated. Savings on lubricant, time of application, and improved housekeeping are some of the advantages cited.

Heavy roving on top spool of ring doffer.

There are several recommended procedures for correcting heavy top spool roving. Use narrower width rings on top doffer, since top rings carry more stock because these are the first rings to pick stock off the fancy. Also, set bottom doffer closer to cylinder or set off the top doffer.

Some mills never experience this trouble: "I have 44 sets of cards with ring doffers with not a half turn difference in speeds. Top and bottom spools are mixed in spinning and never produce a difference in quality. Tensile strength tests on spun yarn do not indicate any difference. Width between top rings is sufficient to let long fibers pass to the bottom doffer for random and uniform distribution on top and bottom spools." Relative speeds between cylinder, fancy, and doffer are not a contributing factor to this condition.

Removing fly from fancy.

A suction system similar to side waste collectors is available. A bonnet is necessary. Some carders object to bonnets because they can't observe carding action on the finisher cylinder. Bonnets are feasible on 1st and 2nd breakers, according to this group of carders. A plastic bonnet on finisher is recommended. One carder states that fly return system is satisfactory for his short stock work but not on long fibers.

Hydraulic pressure for Peraltas.

Mills not equipped with air pressure line can now switch from spring-loaded Peralta rolls nevertheless. A hydraulic pressure system, independent of outside elements, is available for spring-loaded rolls in mills reluctant to install pneumatic type loading.

Adjusting weights in carding or spinning.

There is much mixed reaction and no agreement in carding circles as to where in the mill is the most preferable place to adjust weights.

Repair Conveyor Belts Immediately

In order to get the maximum service life out of conveyor belting, repair all belt damage as soon as it is discovered, Newell Perry, a belting engineer of Thermoid Co., recommends.

Belt fabric exposed to weather will absorb moisture if the protective cover becomes damaged, and may even become soaked, he said, pointing out that in warm weather this condition leads to mildew and rot; in winter, ice crystals may gnaw at the fabric from within as the belt flexes. Thus, immediate repairs not only prevent the spread of damage, with its threat of premature failure, but also keep out the water which is the natural enemy of any conveyor belt.

Repair Kit Components. An adequate repair kit to help the maintenance man to give belting proper attention includes: sharp cobbler's knives and a stone to keep them sharp; a supply of emery cloth, rubber cement, inner tube patching rubber, rip plates, and standard belt fasteners and accessories, together with rags and gasoline for cleaning. As each belt is installed, remnants should be kept, because they will prove useful in subsequent repairs.

Mending Cuts. To mend long and deep cuts which go through to the fabric, Mr. Perry suggests, open the cut, clean out all dirt, and cement the cut closed, allowing the cement to dry thoroughly before the belt is restored to service. Where bits of torn cover leave exposed spots with only slight damage to the fabric, remove the loose ears of cover stock by carefully cutting a curved and bevel-edged area around the spot; then sand the edges, apply cement, allow it to dry, apply tire patching rubber, and finally skive the patch flush with the belt cover.

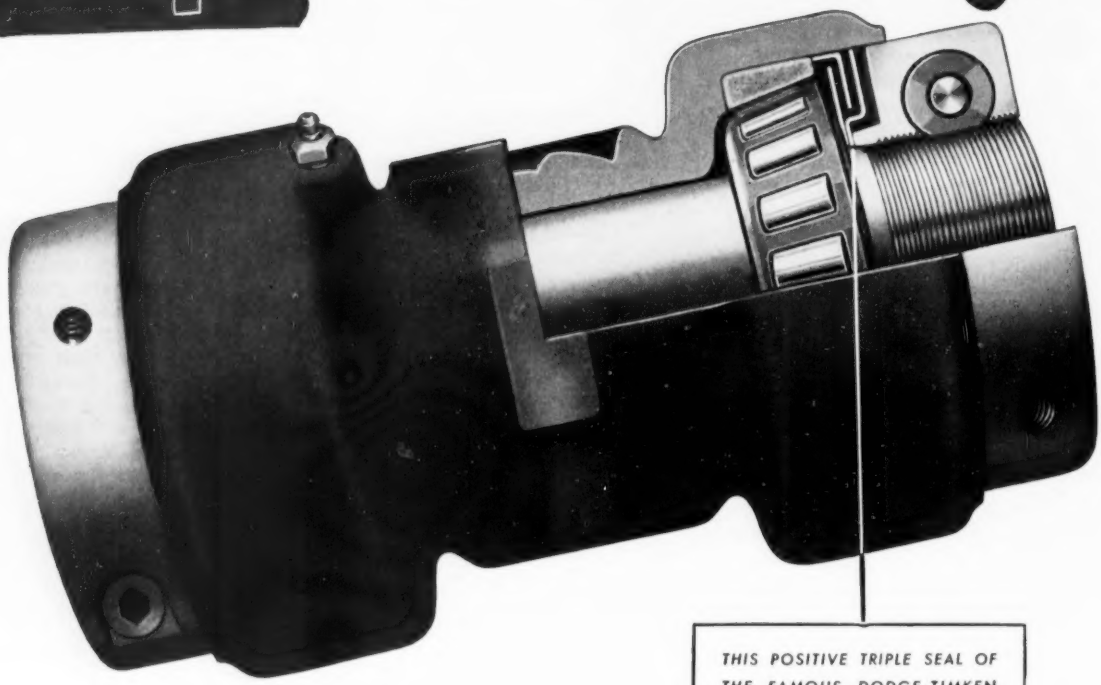
Repairing Rips. Where gouges have penetrated the belt, or longitudinal rips have occurred, these points must be cleaned, sanded, cemented, and reinforced with rip plates at three-inch intervals, he said. Transverse rips require similar treatment with standard belt fasteners instead of rip plates. Use rip plates on longitudinal rips only, and standard fasteners on transverse rips only.

When holes in the belting do not permit the simple use of rip plates and fasteners, cut out the hole into the smallest possible rectangle with its sides parallel to and at right angles to the belt edges. Then, from belting remnants, cut an exact fit for the hole and insert the piece, fastening it with belt fasteners all around the patch. Cement all edges thoroughly.

Vulcanizing. Vulcanized patches are superior to those previously described, Mr. Perry pointed out, but require the addition to the kit of a portable vulcanizer, rubberized fabric, tie gum, cover stock, a one-ply knife, and fabric pliers. In preparing a vulcanized patch, work down into the damaged belt as far as necessary by removing progressively smaller blocks of fabric with each successive ply. Clean, roughen, and cement the cavity, neatly fit in blocks of new fabric and finally apply the uncured cover. Skive the edges of the patch flush, and vulcanize. Such patches cannot be made successfully unless the belt is dry, because the presence of moisture will permit the development of internal steam blisters.

Only very large users of conveyor belting will find it necessary to vulcanize their own belt patches and splices.

Stops Oil Damage!



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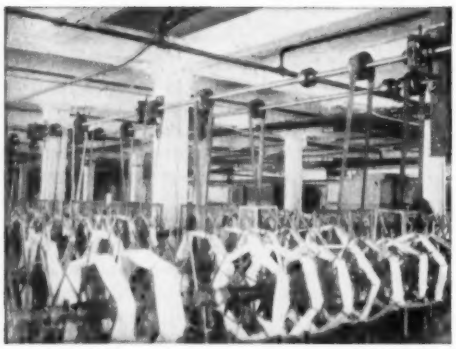

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Alabama Mill Men Discuss

Service Department Problems

(Mechanical—Electrical—Maintenance—Supply)

Staff Report

ALABAMA Textile Operating Executives met November 22, 1952, in Thach Hall at Alabama Polytechnic Institute to discuss mechanical, electrical, maintenance, and supply problems. Calvin Warren, Jr., Russell Manufacturing Co., Alexander City, Ala., conducted the first portion of the meeting which dealt with mechanical and electrical practices in the mills. H. Grady Webb, Jr., West Point Manufacturing Co., Langdale, Ala., presided over the second half of the forum which dealt with problems of maintenance and supply.

Pipe Fittings for Steam Lines. In discussing pipe fittings for use in steam lines, it was generally agreed that for low pressure lines (up to approximately 100 lb) that screw fittings were preferred on pipe up to 2½" in diameter. Where high pressure steam is employed, and where 2½" and larger pipe is used, welded fittings were preferred.

Water in Compressed Air Lines. Equipment used to remove water from compressed air lines in Alabama mills includes: aftercoolers, manual and automatic drains, condensing tanks, poro-stone filters, absorbent cotton filters, and insulated pipe to maintain uniform temperature of the air transmitted by the pipe.

Other factors mentioned were: the necessity to drain tanks and traps regularly, change filters regularly, and insure adequate pitch to air lines. One mill found that a temperature control valve at the compressor helped to prevent excessive moisture in the air lines. The compressor did not sweat inside so much when water jacket temperature was controlled.

Sealing Floors. A typical example of how some mills treat floors and apply seal is as follows: Floor was first sanded, then buffed; primed with a penetrant where floor was rough, then seal applied. After two weeks floor was mopped and second coat of seal put on. Once a year two coats are applied, two weeks apart.

The consensus was that sealing floors cuts cost of floor repair. One mill reported a 40% saving in repairs. Sealed floors pay for the treatment in savings, according to those answering the question. Maintenance procedures given for sealed floors vary as follows: reseal once each year; buff

HAT WINNERS!

Those who registered at the meeting had three chances to win a new hat. Three names were drawn at random, and the winners of three new hats were: **B. F. Stumberg, Jr.,** Huntsville Manufacturing Co., Huntsville, Ala.; **H. B. Spence,** California Cotton Mills, Uniontown, Ala.; **W. L. Brown,** Opelika Manufacturing Corp., Opelika, Ala.

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N944	Navy
N948	Blue Green
N945	Red (Dark)
N987	Pink
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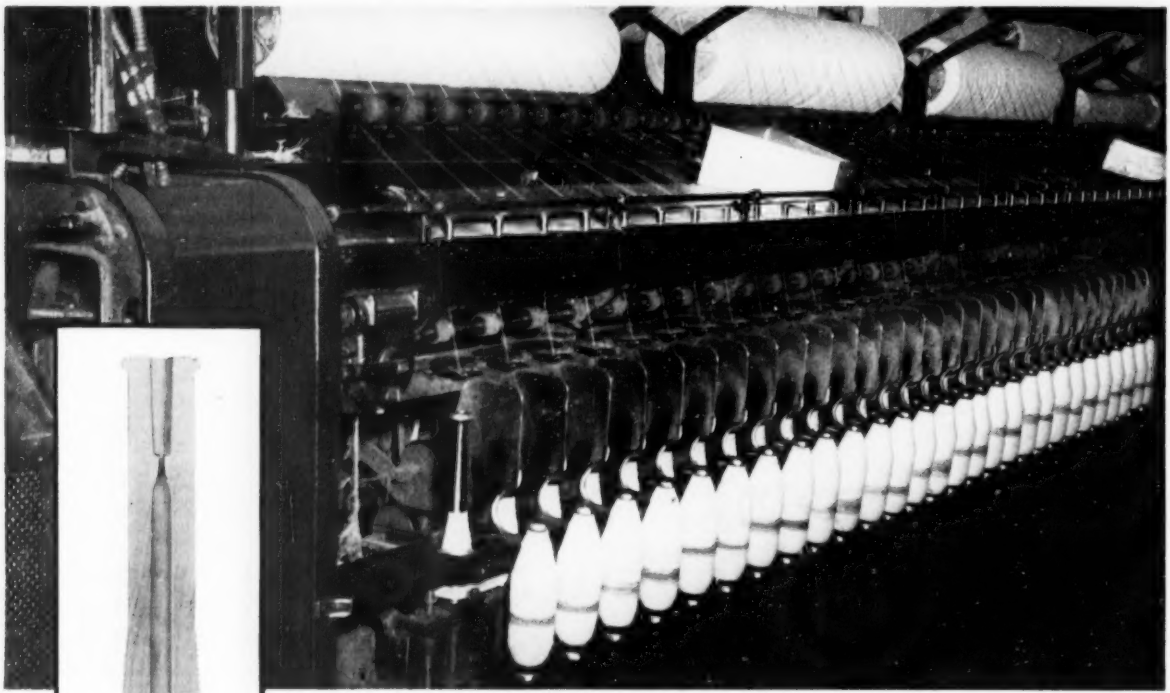

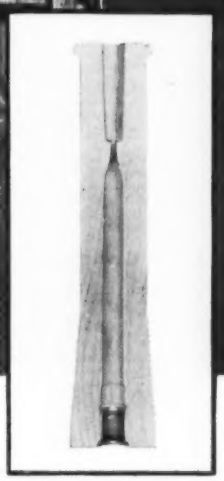

Cross section view showing machining details and bushings.

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Contact your nearest Vermont Spool and Bobbin representative and compare the advantages and the low cost with the bobbins you are now using. Further information upon request.

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- **Brass Bushings**
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once a month; dry mop; buff occasionally; reseal every 6 or 7 months.

Removing Oil from Floors. Someone at the meeting asked how to remove oil from floors around machines. Several suggestions were offered. One man said he sanded over the area and painted with gray banana oil paint. Another mill man stated that sawdust sprinkled on the floor underneath machines absorbs oil from the floor and can be swept out. According to another comment, a type of paint is available which oil will not soak through if it is applied on new floors before machines are set up.

Circuit Breakers. Six mills out of nine preferred AB1 type air circuit breakers on motors over 3 hp. Fuse disconnect switches were preferred by three mills. Those preferring the air circuit breakers gave as reasons for their preference the following: more reliable, less maintenance and upkeep, safer, and although initial cost is more, upkeep over a period of time is less, thereby providing more overall economy.

Equipment Records. Six out of ten mills answering the question keep a card file to provide quick and accurate information on all motors and electrical equipment. The cards usually show location of equipment, duty, name plate data, and records of repairs. Four mills indicated that they kept no records of this kind. Those using the card system claimed that the records were worthwhile if they are kept up-to-date.

NEMA Starter Enclosures. With one exception, all mills reporting experience with NEMA 1-A enclosures for magnetic starters found them to be safer and cheaper in the long run because they require less maintenance and cleaning. In one instance the dust-tight feature was found to be of little benefit for the application considered.

Spare Parts Inventory. Nine mills answered a question regarding methods of keeping spare parts inventory and placement of responsibility for ordering parts. All of these mills held the supply clerk responsible either directly or indirectly for ordering parts and keeping inventory records. These mills all used some form of card system to keep account of parts for inventory purposes. One mill used a system whereby a red card was placed on the parts bin in each instance where parts were on order, and a white card was placed on supply bins where an adequate inventory was on hand.

Handling Lubricants and Empty Drums. Representative answers to a question regarding handling of oils, greases, and empty drums are as follows:

Mill B. Oils and greases are kept in locked storage and are issued by supply clerk in same manner as other supplies. The oils used in abundance are issued to the departments by the full drum. The empty drum is returned by employee who checks out full drum.

Grease is issued in lots of 20 pounds or less, depending upon volume used. Full and empty drums are handled on special (curved back) hand trucks, large size. Empty drums are returned for deposit refund once each month.

Mill C. Store drums in tiered racks a safe distance from buildings. Pick them up by chain hoist

Maintenance and Cleaning Schedules for Air Change Systems and Humidifiers

Mill No.	Type System	Maintenance and Cleaning Schedule
A	dry	blow out weekly rework humidifiers on schedule
B	wet duct	clean screens three times in eight hours units are cleaned once a week
D	dry duct	clean weekly
E	wet duct	clean outlets twice daily clean ducts weekly clean motors and bearings every 6 months
F	wet duct	follow manufacturer's recommendations
G	wet duct	clean recirculation screens and exhaust louver screens every two hours wipe outlets twice daily control cabinet screens cleaned daily check operation of system daily clean control cabinet weekly clean intake and intermediate drain pans weekly after blowing clean water strainers, main lines, and orifice housing weekly drain and clean out recirculation filter tank monthly lubricate fan and evaporator motor bearings every three months clean intake screens weekly
	dry duct (with atomizers)	clean recirculation screens and exhaust louvers every two hours check operation of system daily clean grills according to lint condition drain air lines twice weekly in summer clean ducts inside yearly clean atomizers completely yearly
	Central Station	check operation daily clean recirculation screen (1" screen) daily blow off louvers and motors inside apparatus room daily wash and clean blowers daily wash and clean baffer plates daily check all atomizers daily to see that they are functioning properly control screens are cleaned daily washers are drained, washed, and cleaned weekly controls are cleaned inside weekly clean grills every two weeks clean inside ducts yearly clean atomizers completely yearly
	Ductless Air Change	check operation of system daily drain air lines twice daily blow out window units every other day clean exhaust louvers every other day
H	dry duct	clean inside controls weekly clean screens every 14 days clean out at doors every three months clean externally once a week
I	evaporative cooling	maintenance crew assigned to take care of all details
J	dry duct	ducts are cleaned inside weekly atomizers cleaned eternally daily atomizers cleaned inside on regular schedule

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Lubrication of Ball Bearings

Mill No.	Lubrication Frequency	Equipment Used	Equipment Used to Transfer Grease From Large Containers
A	As needed	Hand gun and oil can	Hand pump fitted to large container
B	3 months	Hand gun	Wood paddles
C	3 months	Battery powered gun and air operated gun	Use 25-lb pails and don't transfer
D	3 months	Electric grease gun	Hand pump
F	6 months	Pressure gun	Paddle and air pump
G	6 months	Hand gun or battery-powered gun	Paddle
H	3 months	Grease gun	Use 25-lb pails and don't transfer
I	3-6 months	Hand gun	Transfer pump
J	As needed	Hand gun	

on traveling overhead crane. Lower drums onto dolly, trucks or other specially designed conveyance. We use truck and elevator. Oiling line shafts is a problem requiring special equipment if efficiency is to be attained. We have a shop-made pressure tank that holds 30 gallons of oil and fits into a ladder which is pushed along to each line shaft bearing. The oiler must get up to the bearing in order not to run it over.

Empty drums are returned to oil racks and placed in separate compartments. The oil supplier picks up empties from the rack and replaces with full drums upon requisition from the supply clerk.

Mill D. We use departmental lubrication; therefore, we have a separate building for storing oils and greases, which are issued to departments by requisition, one container at a time.

Mill G. At the present time when oils and greases are delivered, they are unloaded on a platform. A fork truck takes them to an open platform where the grease drums are stacked on end. The oil drums are stacked on their sides to keep water from getting into the container. When oil or grease is needed in the mill, it is carried in by the fork trucks, and empty barrels or drums are carried out and placed on the ground to await pickup by respective oil companies. The maintenance department is responsible for the handling of oil and grease.

We are in the process of building covered oil-and-grease-platform racks. The oil and grease will be unloaded directly from delivery trucks into the racks. The delivery truck will pick up empties which will be stored under the oil rack platform. An electric hoist will be used to load and unload oil from the racks.

Mill H. All greases and oils are stored in a building about 20 x 60 ft in size. Each department has a small 40-gallon pump for all of the different types or grades of oil it may use. The departments also keep a small amount of grease on hand, but most of the stock is stored in the oil house until needed by the departments. The oil is carried to the departments by a cart that allows the barrel to lie down with a spout fixed to one end. The cart is pushed to the pump tanks and used to fill them. All the empty drums are either sold or returned for deposit.

Mill I. The system in use in our plant is to send a full drum of each type of lubricant used by a department out to that department as needed. Special types of lubricants are kept in an oil house from which they can be requisitioned through the supply room as needed. Spare drums of most generally used types of lubricants are kept on hand in the oil house.

Drums are unloaded by the lubricant suppliers at a central point and sent from there to the individual departments. Empty drums are sent back to the supply room and returned by the supply room personnel to the suppliers.

Sad Tale of Retailer

Ralph Schneider, president of Broadstreet's, a habitat of New York's well-dressed male, takes exception to the gulf separating men's wear fabric manufacturers and retailers. "I think you producers should know about trends," says Mr. Schneider, "as seen realistically by men's wear retailers. We meet the consumer. We know his desires. We know his thinking because we talk with him."

Lighter weight fabrics and surface interests, as well as color, are being sought by the discriminating male, according to Mr. Schneider, who recommends that mills hurdle the obstacles in meeting this demand. This can be expedited if retailers had a direct relationship with the mill, he maintains. Through this relationship, the problem of late deliveries and ill-timed promotions would cease to exist, according to Mr. Schneider.

The real lament of the retailer stems from his "complete dilemma" arising from too many ideas, viz., new fibers and constructions, converging upon him in one fell swoop. Since a store must meet competition by having all "the new things" available, quantity purchasing of an item has to be reduced because open-to-buy requirements are disciplined to a certain limit. Yet, staples provide the bread and butter for both retailers and mills, reasons Mr. Schneider.

In mill quarters the feeling is that retailers have all the available information on textile developments from which to formulate their buying policies at their fingertips if they would just grasp it — in textile manufacturing publications. From such sources, retailers can keep abreast of textile progress and break the tape at the same time as the cloth manufacturer, well in advance of consumer interest. At this point in time, joint promotions can then be planned.

The Fundamentals

". . . as we greet a new National Administration, we may all fervently pray for sounder judgments on the part of those who govern us, and that these judgments will be based on fundamental truths rather than on purely transient considerations."

By RINGGOLD ARDEN

EXCLUSIVE

WE COULD save ourselves a great deal of trouble as individuals, and as a people, if concern with the superficial things of life did not make it so hard to keep in mind the fundamentals. A spatter of mud on a debutante's satin slipper is far more important to her and her escort than the fate of Asia, or the course of inflation. The individual is so constantly concerned with important trifles that there isn't much time for contemplation of many of the basic facts of life.

We should have reason to hope that those elected to govern us would either keep in mind the fundamentals when dealing with important problems and principles, or at least maintain a staff of competent advisors to remind them of these fundamentals. Our hopes in this direction, however, are quite frequently shattered, and we find National Administrations meeting problems of the most profound import with only a casual regard for the implications.

This has been particularly true during the last 20 years, and as we greet a new National Administration, we may all fervently pray for sounder judgments on the part of those who govern us, and that these judgments will be based on fundamental truths rather than on purely transient considerations.

Unfortunately, a palliative measure frequently glitters temptingly, while a basic remedy is a drab and uninviting thing. The loan shark capitalizes on this fact when he advertises, "Why lay awake nights worrying about owing money in a lot of different places, when you can consolidate your debts with one loan from us, and only have to worry about owing money in one place."

It was this same philosophy that prevailed in the New Deal economics. "Why worry about your debts when the Government can pay them for you and you will only have to worry about owing the Government money?"

The fundamental problem in either case is to liquidate the debt, and not merely to swap creditors.

How much we have been plagued these past 20 years by ignoring the fundamental issues presented by major problems, and trying to find a simple, superficial way out of these difficulties! 20 years ago the country was suffering from a serious economic depression. There was nothing mysterious about the cause of the depression. It had sprung from the creation of a very considerable amount of inflation in the prosecution of the First World War.

Money, representing purely imaginary values, had been lavishly put in circulation. The people who had it wanted to use it. The people who didn't have it wanted to borrow it. We raised prices unwarrantably and extended credit beyond the bounds of reason, without the slightest regard for the fundamental fact that borrowed money has to be paid back or the creditor must take a loss.

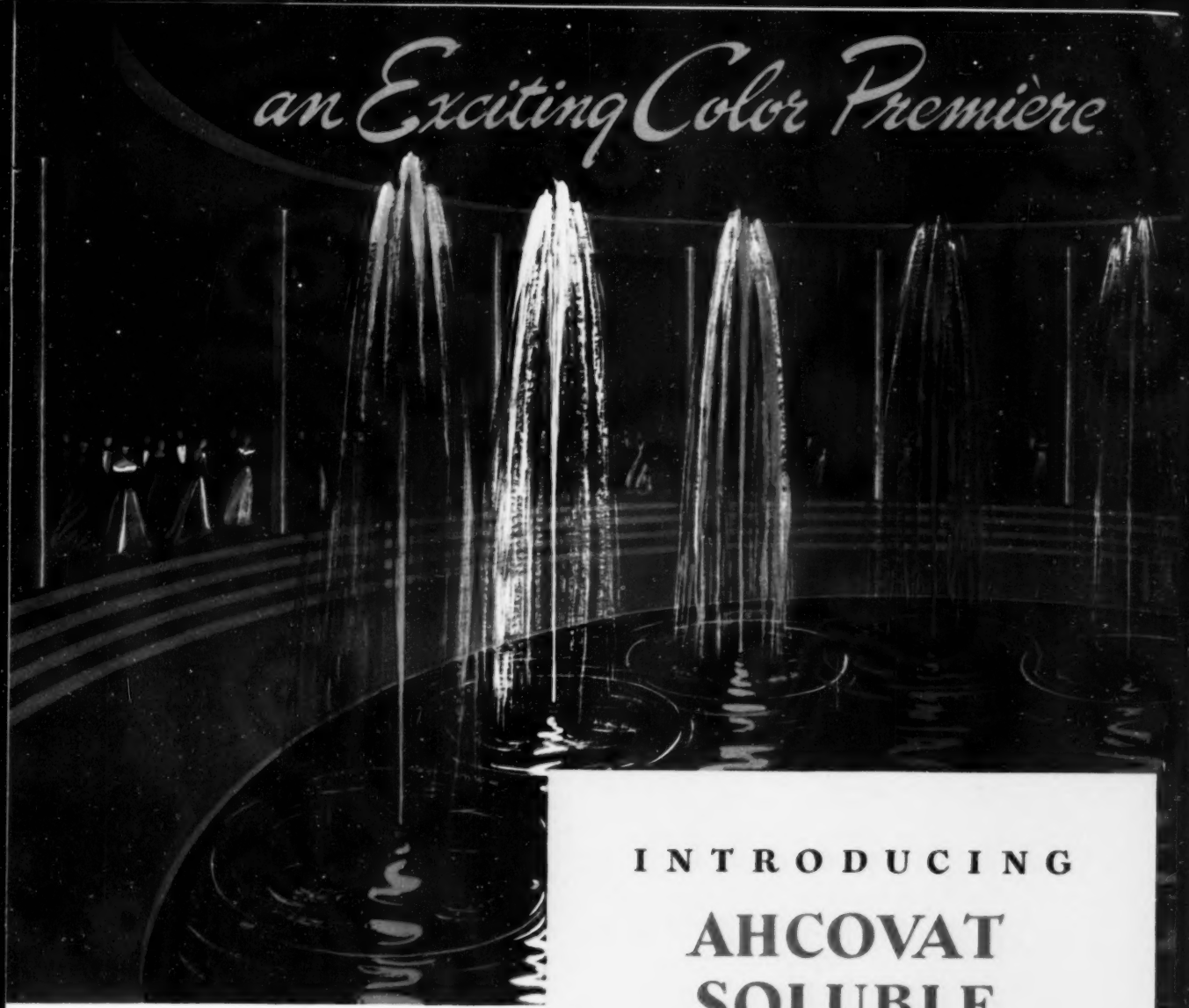
The remedy offered us for this major calamity was more of what had caused it. A new National Administration blithely embarked on a fresh program of more inflation, to remedy difficulties which had arisen from too much inflation.

Between 1933 and 1936 it became apparent that trouble in a big way was brewing in Europe. At the conclusion of the First World War, the victorious Allies had imposed heavy indemnity payments upon the German people, and had then taken careful steps to see that these indemnities could never be paid.

The imposition of these indemnities caused a great deal of transient satisfaction to the governments and peoples of the Allied Nations, but practically all concerned overlooked the fundamental fact that no nation can pay its debts in any way except by delivering goods or services. The Allies demanded money, and there was no way for the Germans to get money. This condition had brought up a situation in Germany which made that country ripe for Adolph Hitler's beguilement.

By 1936, it was painfully evident what Hitler intended to do. He had even written it down in a book which was widely circulated. If ever there was a situation which called for radical and effective action, it was the one existing in Germany in 1935 and 1936, but few persons were willing to consider the rude, fundamental fact that the Germans were not making great sacrifices to rearm themselves for fun, but that they were going to attack somebody, and it

an Exciting Color Première



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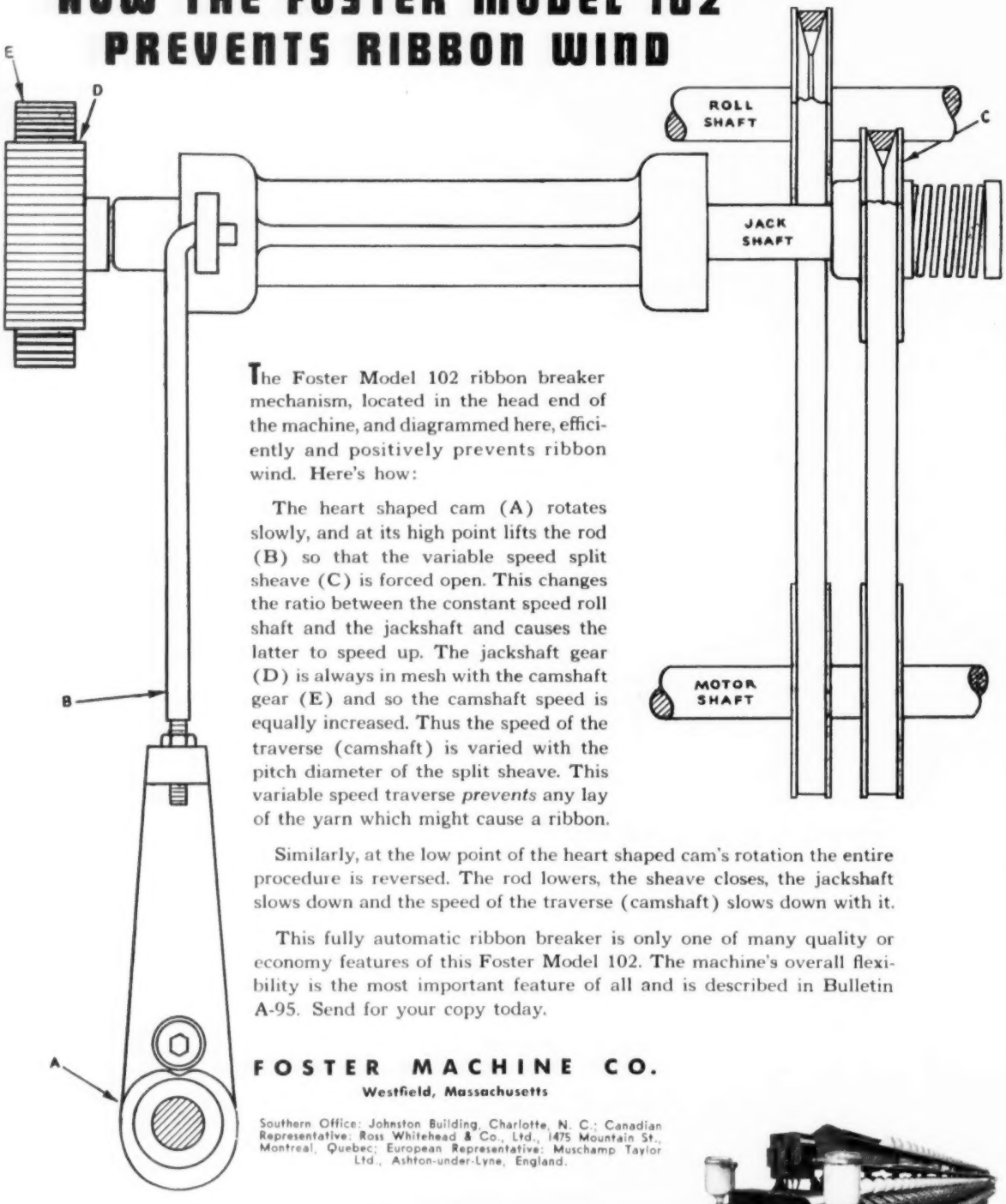
HOW THE FOSTER MODEL 102 PREVENTS RIBBON WIND



The Foster Model 102 ribbon breaker mechanism, located in the head end of the machine, and diagrammed here, efficiently and positively prevents ribbon wind. Here's how:

The heart shaped cam (A) rotates slowly, and at its high point lifts the rod (B) so that the variable speed split sheave (C) is forced open. This changes the ratio between the constant speed roll shaft and the jackshaft and causes the latter to speed up. The jackshaft gear (D) is always in mesh with the camshaft gear (E) and so the camshaft speed is equally increased. Thus the speed of the traverse (camshaft) is varied with the pitch diameter of the split sheave. This variable speed traverse *prevents* any lay of the yarn which might cause a ribbon.

Similarly, at the low point of the heart shaped cam's rotation the entire procedure is reversed. The rod lowers, the sheave closes, the jackshaft slows down and the speed of the traverse (camshaft) slows down with it.

This fully automatic ribbon breaker is only one of many quality or economy features of this Foster Model 102. The machine's overall flexibility is the most important feature of all and is described in Bulletin A-95. Send for your copy today.

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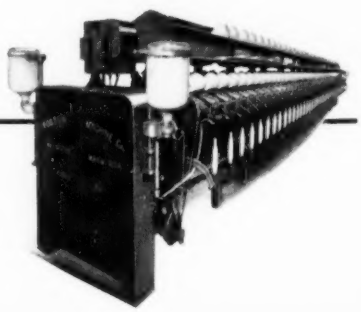


FOSTER MODEL 102

The Flexible Winder

FOR COTTON, MERCERIZED, WOOL, WORSTED, MERINO, SPUN SILK OR SPUN RAYON YARNS

is easier to keep an enemy in his place when he is weak than to put him back there after he is strong.

The same kind of muddled thinking was abroad in the country, both before, and after, we were drawn into the Second World War. In the Presidential campaign of 1940, the successful candidate had solemnly promised in public speeches that he would never draft an American soldier to fight in Europe. After we entered the war as a combatant, our National Administration went to tremendous lengths to convince the American people that its deadliest enemies, the rulers of the Soviet Union, were a bunch of fine, kindly persons who had been misunderstood, and who would undoubtedly become happy members of the world family if we set them an example of generous treatment.

This attitude was not due to any ignorance on the part of our Administration about the character of the communist dictatorship. It was simply due to a complete unwillingness to face fundamental realities.

Communism is, and always has been, and always will be, the deadly enemy of those things we most cherish in the United States. It is the antithesis of liberty, and the destroyer of freedom. To implicity trust people who have repeatedly proved themselves to be without morals, conscience or scruples, and whose most profound beliefs included our destruction as a nation, was gullibility beyond the ordinary limits of stupidity.

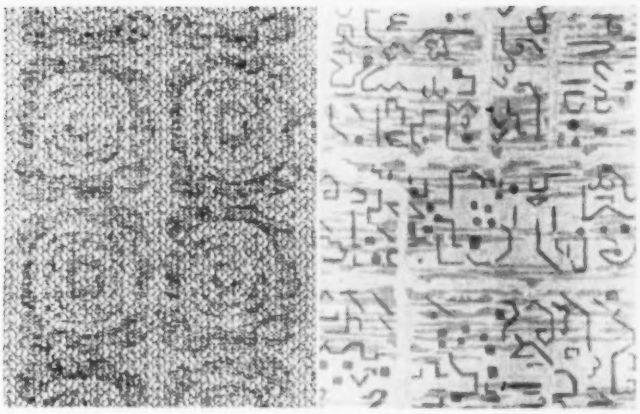
We were faced with a fundamental problem when the communists were trying to get control of China, and we refused to consider it as fundamental. We are now faced with another fundamental problem in Korea, and the problem faces us because we failed to arrive at basic solutions of other fundamental problems.

Some of our best military authorities contend that with a little more pressure we could have wound up this Korean War more than a year ago; and instead of applying pressure, we removed it to give our enemies ample time to strengthen their fortifications and consolidate their positions. The President has been to Korea, and has studied the situation. Let's hope that he considers the fundamentals of the problem, and that we are not going to keep on trying to see how we can get by with the least trouble and expense, while hoping for something to turn up and extricate us from our difficulty in Korea, which is only a small part of the over-all world problem.

Fundamentally, this problem is a struggle between civilization and barbarism. Fine slogans and pretty catch phrases try to make it appear that communism is a progressive rather than a retrogressive movement. There is nothing progressive about communism, and Russia has amply proved this. The government of Russia is the same kind of old-fashioned tyranny which has existed under thousands of tyrants, over thousands of years.

The difference between the communists' idea and our idea is the difference between freedom and slavery, and slavery to the state is no less onerous than slavery to an individual.

THE OUTSTANDING fundamental fact about this country and what it stands for is its form of government. This government was de-



Siglo Aleppo

Drapery, Upholstery, and Casement Cloths Take on "New Look"

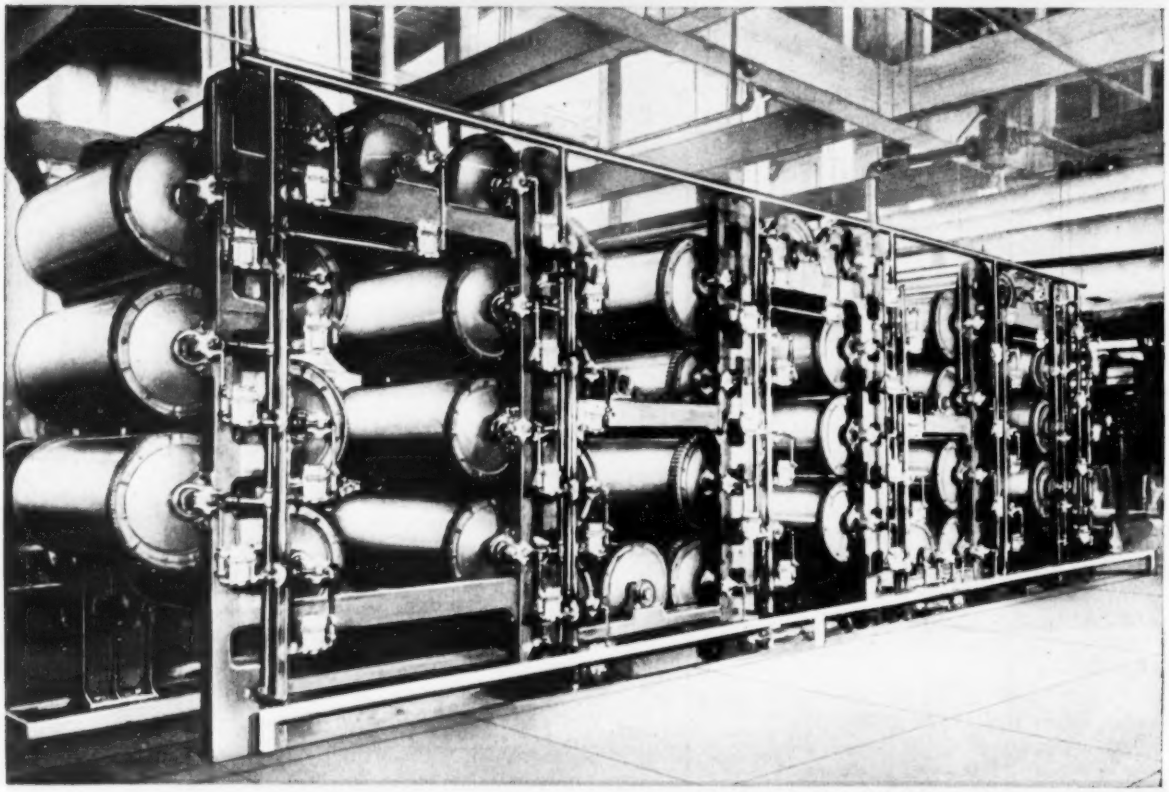
For inspiration in designs, Moss Rose Manufacturing Co., in its spring collection, has secured objects from many countries and adapted them to fabrics that will fit into modern American, provincial, and traditional decor. A Mexican shawl, Indian clay seals, and a hand painted handkerchief are the subjects of Rebozo, Siglo, and Indios. Noteworthy among the collection are fabrics inspired by South Sea Island subjects and which attempt to capture the spirit and color. Such a design is Tahiti.

Spring Festival, a print of Chinese origin, was taken from plates at the Metropolitan Museum of Art. It depicts tribal rites of kindling a new fire each year and planting trees. From the United States comes several tweedy textures as Adirondack. Aleppo, inspired by a Persian carpet, is an abstract.

Two of the largest consumer promotions in its history will be launched this spring when Moss Rose introduces two fabric collections, Coronation and Presidential, aimed at volume retail stores. Each collection was selected by editors of national home magazines for editorial attention.

New warp yarns, including nylon and linen, are being used for the first time by the Philadelphia firm to give added strength and color to the fabrics. Linen fibers combined with filling yarns of acetate, cotton, jute, and nylon produce a cloth of unusual wearing qualities, according to Moss Rose spokesmen.

Revolution in Cylinder Dryers



New manufacturing techniques . . . new fabricating economies . . . new precision machinery . . . increased capacities

There's a "revolution" in drying equipment. It started with the new Butterworth plant at Bethayres — the most modern unit of its kind for the manufacture of cylinder dryers. New precision machinery including automatic welding equipment for both coded and uncoded cylinders is in use. Increased capacities mean deliveries on schedule.

Each installation of Butterworth drying equipment is engineered to do a specific drying job, taking into consideration weight of cloth, degree of moisture content, dryness desired. *And you get an engineered installation at a competitive price because of improved manufacturing techniques.*

Choice of copper or stainless steel cylinders . . . vertical or horizontal arrangement . . . fabricated or cast-iron columns . . . gear or sprocket and chain drive.

Before you do anything about increased drying capacity, let us send a Butterworth engineer to your mill with facts and figures on new Butterworth Dryers. No obligation.

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Bethayres, Pennsylvania

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Machines for Bleaching, Boiling-Out, Dyeing, Mercerizing, Finishing and Embossing
Pot Spinning Machines for Synthetic Fibers
Calender Rolls : : Tenter Chains

BUTTERWORTH

signed with hardly more than one purpose in view — to make us free, and keep us free. Our Constitution, and our faith in it, are the only things that preserve our freedom. This Constitution was probably the first instrument of government in the history of the world which was instituted by the people themselves for establishing and governing a nation.

In ancient Greece the inhabitants of many cities had won their freedom from some local tyrant and had established popular government, but the Greeks were never able to establish a national government, nor did they employ the device of a written constitution.

If the experience of these Greek citizens is any reliable criterion, our written Constitution is the most important single fact in our lives. A written constitution represents the considered will of the people. It represents their wishes after they have had time to give sober and extensive consideration to every measure. The written Constitution is our fundamental law — the rock on which all of our other laws and customs rest.

In the Greek democracies there was no such anchor as a written constitution. The people could do any insane thing they wished under the spellbinding influence of some skillful demagogue. No folly was too great to be undertaken in the frenzy of excitement whipped up by popular, but unscrupulous leaders.

The Romans improved on the Greek system by converting a democracy into a republic, but the Roman Senate was a soverign body, which could do as it pleased, and it controlled an army to back up its decisions.

In England, Parliament is a sovereign body. There is no appeal from its decisions except by revolution. The highest English Court would not dare to declare an Act of Parliament void.

In the United States the Congress can make laws, but the Constitution is *The Law*. It is the considered will of the people, and anything the Congress or the President may do which duly constituted courts hold to be contrary to the provisions of the Constitution, is null and void.

It is this form of government which has guaranteed a degree of freedom which would have been considered impossible 300 years ago, that has enabled us and our ancestors to change this country from a wilderness to the greatest world power ever known, in a couple of hundred years. Any activities, either domestic or foreign, which threaten our form of government and our priceless and precious liberties are a fundamental threat to the existence of this nation, and to the further progress of civilization.

The United States is the only physical organization in the world today capable of restraining the pentup flood of barbarism which the communist masters of the Russian people stand ready to loose upon the world.

Our strength is in our freedom. The tremendous economic advances, so avidly copied by the uncreative communists, have been made possible by a system of government which lets every man seek his own good, in his own way, so long as he does not trespass upon the rights of others.

Wool Industry Equipment at End of 1951

Source: "World Wool Digest" published by International Wool Secretariat and the Wool Bureau Inc.

Combs

Reporting Country	Total		
	1949	1950	1951
Australia (a) ...	350	347	374
Austria ...	84	106	100
Belgium ...	740	746	759
Canada ...	61	74	...
Egypt ...	15	15	...
France ...	3,009	3,057	3,034
Germany (Fed. Rep.)	...	2,230	2,270
India (a) ...	...	41	...
Italy ...	1,602	1,473	1,473
Netherlands ...	156	156	156
New Zealand (b) ...	50	54	54
Norway ...	10	10	10
Peru ...	...	68	...
Portugal ...	85	89	89
Spain ...	...	749	...
Switzerland ...	...	...	b 284
Turkey ...	...	120	...
Union of S. Africa (c)	96	114	...
United Kingdom ...	...	...	2,307
United States ...	2,727	2,808	2,807

. . . Not available. (a) End of June. (b) End of March. (c) Firms rendered returns for their book-years ending in year shown.

Looms

Reporting Country	TOTAL		
	1949	1950	1951
Australia (d) ...	5,921e	5,950	6,142
Austria ...	...	...	3,227
Belgium ...	12,600	12,600	12,600
Canada ...	3,678	3,607	...
Egypt ...	655	655	...
France ...	42,951	43,723	42,758
Germany (Fed. Republic)	...	21,549	23,835
India	...	2,148	...
Italy	22,000	22,135	22,185
Japan	14,168	16,013	18,937
Netherlands ...	8,605	8,605	8,605
New Zealand (g)	649	645	701
Norway ...	1,950	2,000	2,260
Pakistan ...	7,200	...	...
Peru	...	740	...
Portugal ...	2,560	2,494	2,483
Spain	...	11,663	...
Sweden ...	4,568	4,722	...
Switzerland ...	...	...	...
Turkey ...	...	1,600	...
Union of South Africa (h)	2,264	2,622	...
Un. Kingdom ...	...	...	68,219
United States ...	34,976e	34,519e	33,019e

. . . Not available. (e) Excluding pile and jacquard looms numbering 1,546 in 1949, 1,712 in 1950, 1,730 in 1951. (d) End of June. (e) Amended total. (g) End of March. (h) Firms rendering returns for their book-years ending in year shown.

Spindles Installed and Capable of Operation

Reporting Country	WORSTED ('000)			WOOLLEN ('000)			TOTAL ('000)		
	Total			Total					
	1949	1950	1951	1949	1950	1951	1949	1950	1951
Australia (a) ...	274·5	291·0	292·5	155·7	157·9	157·7	430·2	448·9	450·3
Austria ...	82·0	79·1	83·2	102·0	113·1	111·1	184·0	192·2	194·3
Belgium ...	455·0	472·5	468·0	353·2	356·0	356·0	808·2	828·5	824·0
Canada ...	143·1	123·3	...	165·8	164·4	...	308·9	287·7	...
Egypt	22·9	22·9	...	7·8	7·8	...	30·7	30·7	...
France	1,959·4	1,945·3	1,899·3	850·8	868·1	859·1	2,810·2	2,813·4	2,758·3
Germany (Fed. Republic)	...	453·8	499·6	...	585·9	630·3	...	1,039·7	1,129·8
India	...	62·5	...	...	54·1	...	...	116·6	...
Italy	755·0	767·0	767·0	851·0	868·0	868·0	1,606·0	1,635·0	1,635·0
Japan	689·8	767·8	961·7	...	...	...	...	...	...
Netherlands ...	118·3	118·3	118·3	241·9	241·9	241·9	360·2	360·2	360·2
New Zealand (b)	25·2	28·6	29·6	43·9	45·7	46·2	69·1	74·3	75·7
Norway ...	13·7	16·0	21·8	103·2	101·1	101·3	116·9	117·1	123·1
Pakistan ...	—	...	...	2·9	...	...	2·9	...	...
Peru	...	30·0	...	...	33·0	...	...	63·0	...
Portugal ...	69·4	30·0	66·5	86·8	85·5	86·9	156·2	150·6	153·4
Spain	...	271·6	...	...	261·0	...	...	532·6	...
Sweden ...	76·1	75·4	...	181·3	179·7	...	257·4	255·1	...
Switzerland ...	...	...	199·38	...	...	251·88	...	...	451·18
Turkey ...	...	...	...	...	...	...	...	54·0	...
Union of S. A. (c)	...	...	...	...	...	...	78·6	103·0	...
Un. Kingdom ...	...	...	3,048·2	...	...	2,225·0	...	...	5,273·2
United States ...	1,844·0	1,814·4	1,791·6	1,443·0	1,308·1	1,236·1	3,287·0	3,122·6	3,027·7

. . . Not available. (a) End of June. (b) End of March. (c) Firms rendered returns for their book-years ending in year shown.

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Whether it's in shooting or slashing . . . reliability depends as much on what you use as how you use it.

The Keever aim for many years has been to keep Victor Mill Starch at unvarying top quality.

Better penetration, stronger warps, less shedding in high-production mills are often due to Victor Mill, "The Weaver's Friend" . . . and the conscientious help of the Keever man who serves you.

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• Letters to Editor • Technical Discussion •
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Write to the Editors!

Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.

Address: Editor "Textile Industries," 806 Peachtree St., N. E., Atlanta, Ga.

Comments on Job Assignments

Subject Briefed: CONTRIBUTOR No. *8470 discussed job assignments as they existed in the "old days" as compared to present conditions. He suggested that overseers and secondhands should get together periodically and study each job in the respective departments before making job assignments. Also, he suggested that job assignments be set forth in detail and in writing to assure identical procedures on all shifts. (July 1952, page 147.)*

EDITOR TEXTILE INDUSTRIES:

I read with interest the article by CONTRIBUTOR No. 8470 [July 1952, page 147] on suggested ways to establish job assignments. Certainly the contributor has made some wonderful suggestions, and we do not wish in any way to detract from those statements. But if one reads carefully his contribution, we cannot help but notice that he has never got the man on the job.

No one can dispute his statement that "one of the most difficult tasks confronting overseers in present day mills is setting up proper job assignments. This is particularly true in mills that are unionized where the overseer would be watched closely to make sure that he does not overwork any employee or assign any operative duties which are not considered part of the normal routine."

At the Blue Ridge Conference on Industrial Relations, two most "amazing things" were "discovered." One was a statement that "scientific management could not exist unless one had good industrial relations." I contend that one cannot have good industrial relations unless he has scientific management and engineered jobs. I further contend that these so-called "back in the old days" when an overseer's word or his idea of a job assignment, even without a union, were days of very poor industrial relations.

The other "discovery" is as follows: Some years ago when staff and line operation (which we agree is the best) came into being, and overseers and secondhands (as well as most superintendents) were relieved of any voice in operational plans or duties of working force, including job assignments, hiring, firing, and disciplinary action; the secondhands and overseers, particularly, became almost forgotten men. The superintendent, in most cases, was almost helpless to guide these men in their duties.

After all these dream plans had been exhausted and war quotas dropped lower, and discipline and morale reached a low ebb, some-

KINK CONTEST!

$100 will be awarded the winner.
Send your entry now!

This contest ends March 15, 1953.

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

► All contributions must be postmarked not later than midnight, March 15, 1953.

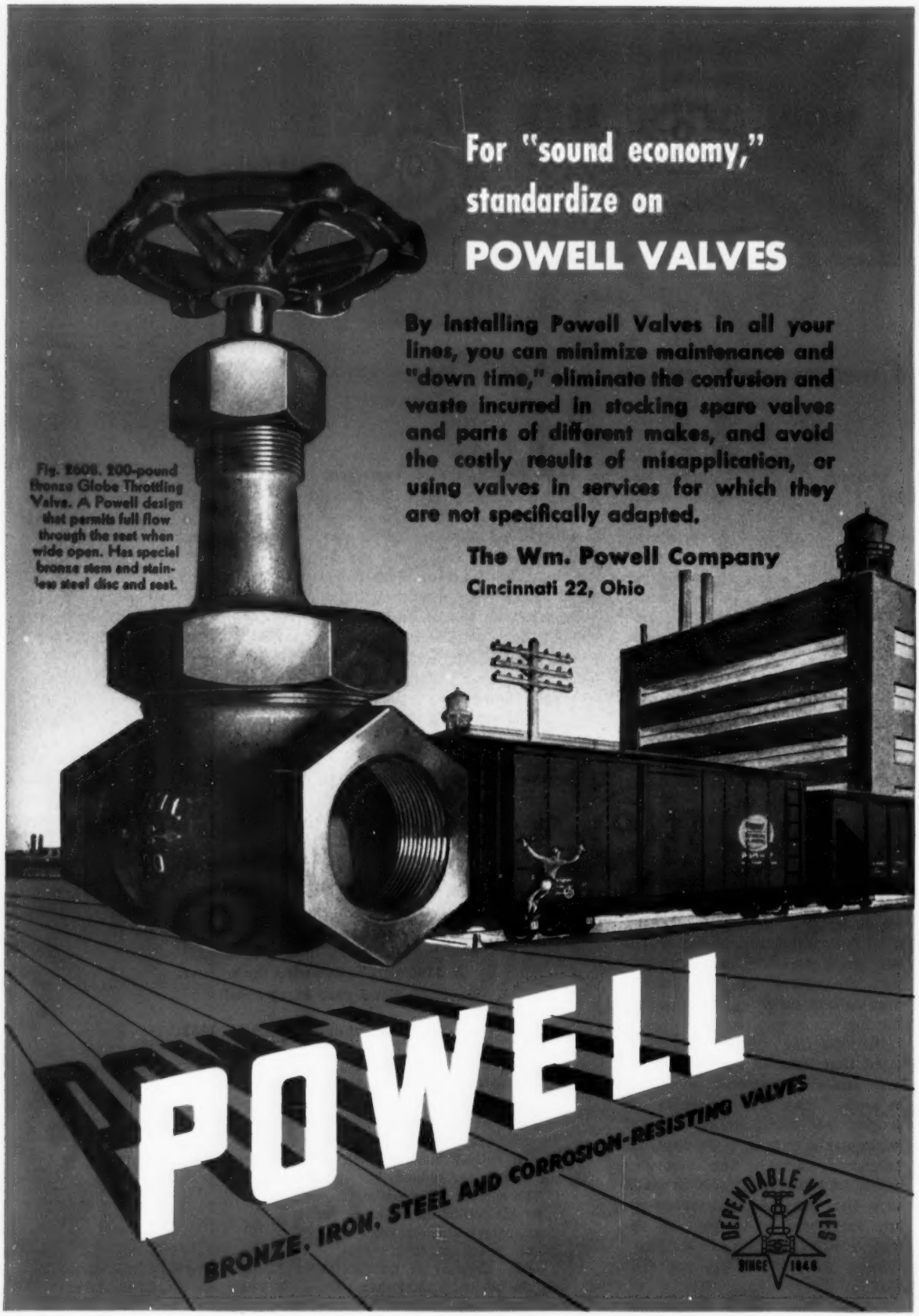
► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance—no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously.

Send your contest entry to:

Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.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POWELL VALVES
By installing Powell Valves in all your lines, you can minimize maintenance and "down time," eliminate the confusion and waste incurred in stocking spare valves and parts of different makes, and avoid the costly results of misapplication, or using valves in services for which they are not specifically adapted.
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Fig. 2608. 200-pound Bronze Globe Throttling Valve. A Powell design that permits full flow through the seat when wide open. Has special bronze stem and stainless steel disc and seat.
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body found and discovered what is known as a "Foreman." Since that time, trade papers, magazines, periodicals, books, and pamphlets have hailed the importance of this formerly "forgotten man," called a foreman or a supervisor.

Now the latest discovery, as we mentioned before, is that the foreman is the key man in putting across company policy, building morale, selling company ideas to employees on waste reduction, cost reduction, and improvement of quality. Also, he is charged with the responsibility of getting employee acceptance of new job assignments, as well as writing the descriptions of job duties. This is true whether the plant is unionized or not. (Let me state that I have been connected with a mill operating under contract for several years, and further, I do not contend that having a union makes the task any easier.)

Whether the mill has a standards department or not, someone must use scientific means to determine whether or not the job and job duties allow for correct amounts of personal and idle time. This can only be done through job analysis and breakdown of the component parts of the total task, and with judgment and figures then arrive at a theoretical job.

Then comes what I consider the part that CONTRIBUTOR No. 8470 has left out; namely, a method of approach to the employee.

Most mills contend that they can only make a job assignment on Monday, giving as a reason that they do not want two rates for the week. This is sheer nonsense. Others contend that no explanation to the employee is necessary, and some go so far as to say that such explanation must be omitted because the employee is paid to do a job without explanation. This latter is a tragedy, and shows a complete lack of human understanding. Having this human understanding is the basis for success for all supervision and management.

Given a management with complete sympathetic human understanding and union officials with the same, keeping in mind that unions cannot be expected to think and behave like business, then there will be no need for a union and management conference table. Of course in such an instance there will be no highly lucrative salaries for union officials.

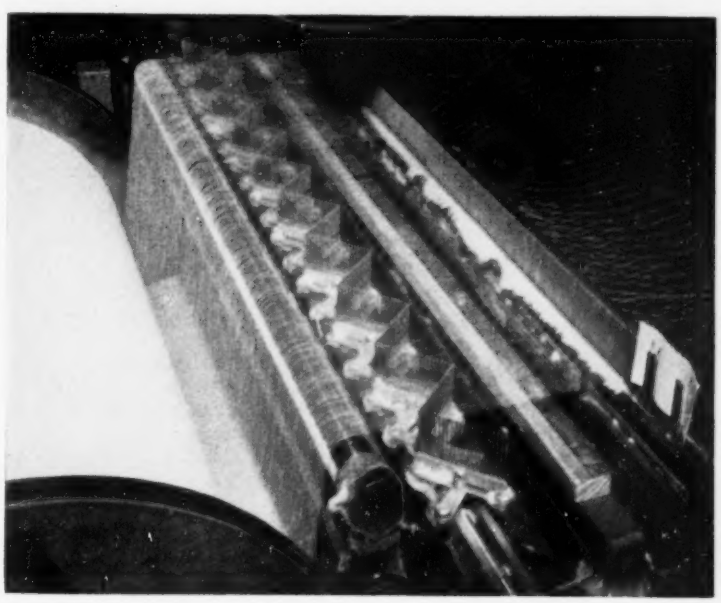
Every employee has a right to expect an explanation as to why his job assignment is being changed. That explanation must be patiently and truthfully given. One school of thought in making job assignments operates on the following basis: First of all the job assignments are worked out through careful scientific study, the duties recorded in the department head's book of job duties, and in the master file of the job duties or assignments; that organization operates on the theory that Monday is the worst day of the week to talk about or make a job assignment, the theory being that the employee is in the least receptive mood due to (perhaps) excess indulgence over the week end.

The same organization goes further; on a day other than Monday the head of the department sits down, in private, with each employee involved in a change and with a diagram of the job layout and the job duties, explains to each employee that beginning the next day, or if deemed wise, beginning the second day his new job and duties and rate of pay will be as described in the new change.

This gives the overseer an opportunity to explain why such change is necessary. It further

Improvised Slub Catcher for High Speed Warper

A card comb mounted on a wood slat bolted to the sides of warpers serves effectively as a slub catcher. The device shown in the accompanying photo is in use at Hartwell Mills. According to S. J. Burden, superintendent, slubs, lint, and ends that would become stuck with size at the slasher are stopped at the warper.



Above, just a few of the sections in the new Westinghouse book. Some of the other sections are: Motors and Controls for openers and pickers . . . How individual drives can cut scouring costs . . . Improving carding operations . . . Cutting costs in finishing.

Here are new, profitable ideas for your woolen or worsted mill

Westinghouse offers a brand-new free book that tells you how alert woolen manufacturers are using modernized machine drives and electrical equipment to speed up their operations. It contains 40 pages of facts, case histories, illustrations and diagrams.

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You'll find worth-while suggestions here for every step in your mill—from opening and picking rooms to finishing department. You'll get the full story on the best drive for each type of machinery.

Example #1—How to increase slasher speed

New Westinghouse slasher drives enable you to set the warp speed you want. The drives *hold* this speed, regardless of changes in beam diameter, and keep tension constant. You get uniform beams with a minimum of loom stoppages.

Example #2—How to lick lint problems

Westinghouse screened textile motors and Lint-Free motors can't become lint-clogged. The Lint-Free motor has wide, smooth air passages designed in aerodynamic style. Lint zips in, through and out. The screened textile motor halts woolen fibers in the air stream, keeps them out of the ventilating passages and motor.

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Send now for your free copy of "Westinghouse Equipment for Woolen and Worsted Mills," B-4798. And if you're modernizing, expanding or building a new mill, call your nearby Westinghouse office early in the planning stage. Westinghouse Electric Corporation, Box 868, Pittsburgh 30, Pennsylvania. J-94916

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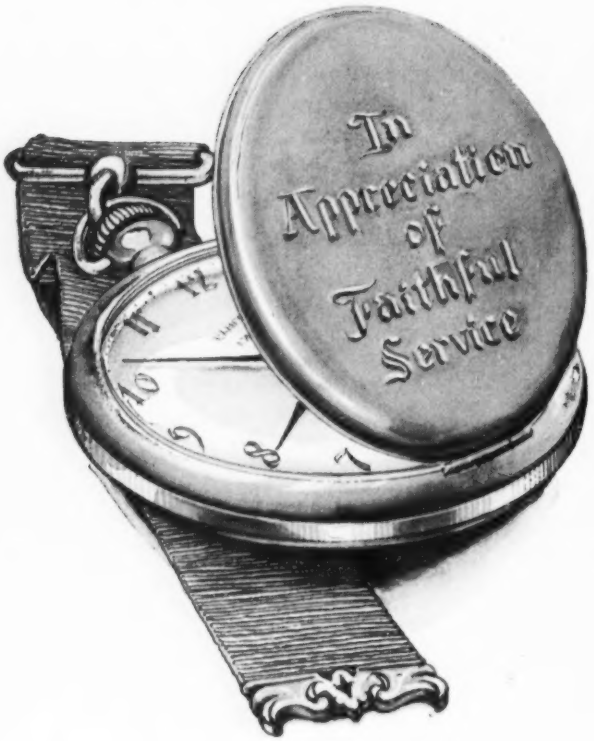
EQUIPMENT FOR TEXTILE PRODUCTION



Honorable Retirement

There is a lot implied by the word retirement. It brings to mind years of good, sound work, honestly performed.

Machines, too, are capable of long, faithful service. They don't get gold watches but they should be honorably retired at the proper time.

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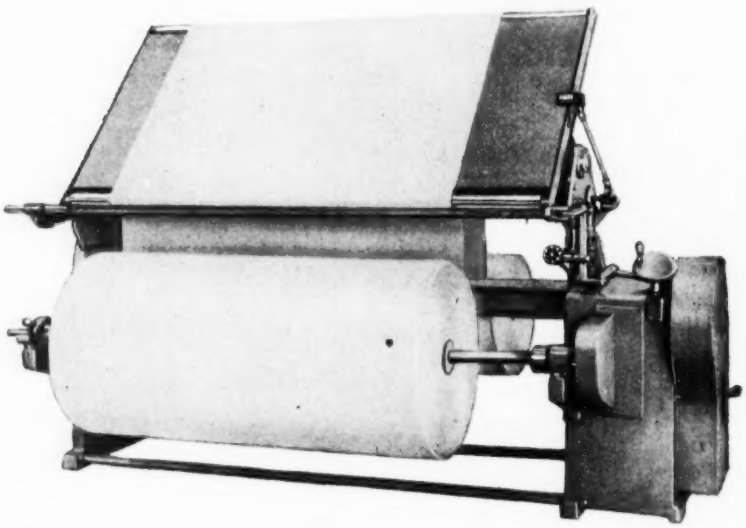
This modern Van Vlaanderen machine, The INSPECTALL, is built to a sturdiness and precision not before found in inspecting machines. It features exclusive one station group control, wide range variable speed drive, one motion clutch control and let-off brake and adjustable examining board. The INSPECTALL handles rolls up to 36" diameter. It will give you long, faithful service. Write for complete information on this versatile machine.



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gives the employee an opportunity to ask questions and "pop-off steam," if that is the nature of the employee. It also affords the overseer the means of judging employee acceptance, which gives him time to alert the other management officials involved.

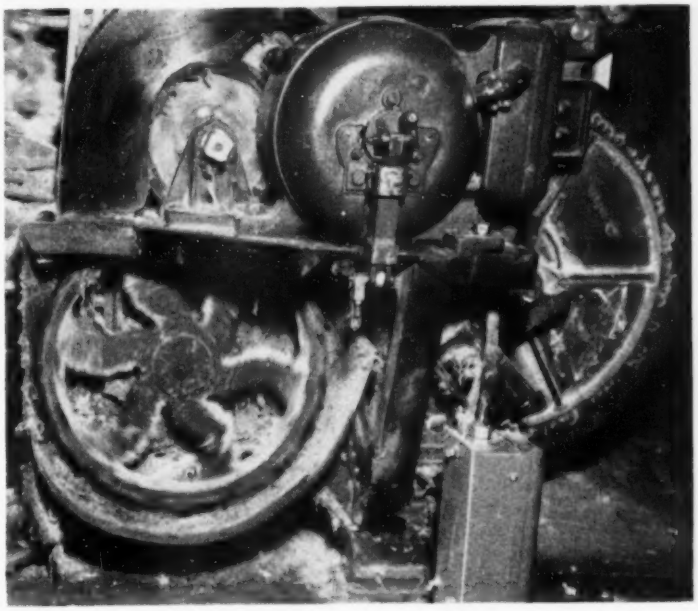
All of this dignifies the operative as an individual, and many times valuable suggestions are picked up. For example: try this test on yourself. Imagine yourself sitting in your office which you have arranged. Your boss walks in and directs you to change immediately the position of your desk, or a table, without any explanation. I think your reaction would be very adverse to your boss, even though his direction might be a good one. You well know that as sure as night follows day, people resist changes. This is true, from top to bottom, of every employee in a company.

There are many human psychological emotions which come into play when one starts or begins a job change. There is such a thing as proper timing, the attitude of the person making the change, the approach and choice of words that this person can use (one person can make another very angry simply by the way he asks for a match). Prior to all of this there must have been previously established employee confidence in the person who is making the change in job assignment. This person must be positive, patient, and tolerant, and he must never make the change on the basis that "this is what I am ordered to do." He must subscribe and fully accept the facts in the case.

One of the greatest things that an operative fears in a new job assignment is that sooner or later he may be sent home. In 90 per cent of the cases which require new job assignments, which may even call for a reduction in the working force, this fear can be entirely dissipated if the management will subscribe and follow the practice of not sending the displaced person, or persons, home. A little foresight and vision can make this possible.

I mean by this alerting the personnel department, or those in charge of hiring, to the fact that machinery is bought which will eliminate a given number of jobs on each shift and that hiring will be held up until normal turnover makes place for the displaced persons to move into. Many companies, including cotton mills, follow this practice. It is simple. It is humane. It eliminates fear and is a tremendous factor in creating public good will.

There is one other factor that must be followed with an open mind which is as follows: After the job assignments have been made, some means must be devised to check the theoretical basis of the job assignment. Of course there is going to be stalling. But this can be detected by experienced men establishing confidence on the part of the operative in the method used and the honesty and integrity of the company. If the job is found to be too heavy, then it must be corrected immediately. By the same token, if the theoretical job proves too light, it must be corrected. This kind of practice should be carried on continuously



Grease Guard for Loom Gear Keeps Floor Clean

An improvised grease guard applied to X2 looms at Hartwell Mills, Hartwell, Ga., does a good job in preventing grease from falling on the floor. The relatively new looms were erected without grease guards. A. L. Campbell, overseer of weaving, saw the need and designed a guard which was fabricated at low cost from sheet metal. Only a few minutes are required to install the guard on each loom, and the mill floors are kept free of grease and dirty accumulations.

Once every two weeks the sweeper scrapes excess grease and lint accumulations from the guards and into a bucket. New maple floors in the weave room are preserved and kept clean, and there are no grease "sticks" to present a safety hazard.

Photo of Type 631-B Strobotac in use at Duplan Corporation, Burnsville, N. C.

Thousands of General Radio Stroboscopes have been in use in the textile industry for many years. They have proven invaluable in the production of natural fiber and synthetic yarn materials. No other single device has aided production as have these simple-to-operate, relatively inexpensive and accurate electronic instruments.

Among some of the hundreds of uses for G-R Stroboscopes in textiles are:

In the Spinning Room: the STROBOTAC®, with no mechanical or electrical connection to spindles or any shafting, measures or checks: spindle speeds; belt and tape slippage and spindle wear; slap of the balloon; misaligned and worn spindles; crooked, worn or unbalanced bobbins; sluffing and other yarn defects.

In Synthetics: in addition to the above, down-twisters, up-twisters, quillers and pot spinners can be observed for correct speed, alignment and balance.

In the Weave Room: the STROBOLUME permits these important motions to be seen: entrance of shuttle into shed; flight of shuttle; boxing of shuttle; flexing of shuttle check strap; behavior of filling bobbin; looping of filling as shuttle enters shed; contact of filling feeler and bobbin; transfer of bobbins; action of cutters; clearance of protection; raising of parallel shoe from parallel; behavior of beat-up; flexing of picker sticks; checking of mesh gears.

The STROBOTAC® and the STROBOLUME can help YOU as they have thouands of others.

Write for "EYES FOR INDUSTRY" for Complete Information

To IMPROVE QUALITY *and* INCREASE OUTPUT *in All Branches of the* TEXTILE INDUSTRY

The Type 631-B STROBOTAC *is a small, light weight, portable stroboscopic tachometer. Its direct-reading range is from 600 to 14,400 rpm. It can be used for s-l-o-w motion observations over the same range. By use of 'multiple images' the range is extended from 200 to 100,000 rpm.* **Price: $140.00**

The Type 631-BL STROBOTAC *is identical with the Type 631-B except that an additional low range down to 60 rpm is supplied for observations on very slow-moving equipment.* **Price: $170.00**

The Type 1532-B STROBOLUME *is a high-intensity light source supplying brilliant stroboscopic flashes some 2,000 times as strong as those from the Type 631-B Strobotac. It operates at speeds below 1,200 flashes per minute, and with reduced intensity up to 3,000. The STROBOLUME can be operated directly from the Type 631-BL Strobotac or from any make-or-break contact circuit. The Type 1535-A Magnetic Contactor is especially designed for operating the STROBOLUME from any rotating shaft. A pushbutton and connecting cord are supplied with the STROBOLUME for single-flash uses.* **Price: $265.00**

GENERAL RADIO Company

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throughout a plant.

As I mentioned before, if a mill does not have the facilities or a department to carry on such work, then the mill must either hire outsiders, which is not good, or train the overseers in such a manner that they will have the "know-all" and the tools to work with. Therefore, it becomes important that each and every supervisor in a plant must, in order to keep abreast of changing attitudes of people, study and keep abreast of the modern industrial management and scientific approach to management problems. This is just as important, or even more important, than staying abreast of only the technical changes that are going on.

We have learned from experience to spend hours, days, and sometimes months, in testing, investigating, and studying mechanical changes, but apparently there are still many who rush in on the human factor involved without any previous study or thought. A supervisor must remember that always there are two forces that are exerted upon him at the same time. These are the technical forces and the forces of human nature. So actually, the real key to making job assignments is based upon employee acceptance rather than action of the individual who has the responsibility of putting into effect the assignment.

Many times employees silently accept and on the surface things appear smooth, yet morale drops, quality falls, efficiency falls, and turnover increases. In such an instance we know that we have not, in the true sense, made a job assignment; instead, we have placed someone on a job, and in effect, have created in the mind of the employee the thought that he can either take it or leave it.

In this day and time, we cannot afford any undesirable attitude on the part of management, or anyone in the supervisory group.

CONTRIBUTOR No. 8516

Device for Cleaning Mule Carriage Bowls

EDITOR TEXTILE INDUSTRIES:

In years past carriage bowls were usually cleaned by the youngest employees in the spinning rooms. The youngest employees were usually boys from 14 to 16 years of age. The requirements of schools and labor laws have left the task to be done by adults. Formerly the boys cleaned the carriage bowls while the two older operators were cleaning the headstocks.

At the present time there are two instead of three operators for each pair of mules, and there are several alternatives to consider:

(1) The operators may be allowed extra time to perform the work while the machines are stopped. About 20 minutes extra time would be required each week, and production would be correspondingly lower.

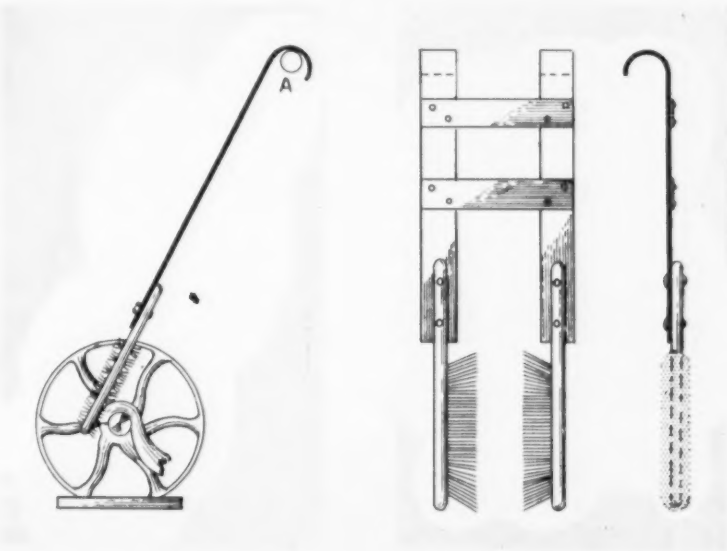
(2) The amount of cleaning done may be reduced by half; that is, the bowls may be cleaned every other week instead of weekly. If this procedure is adopted, the bowls become congested with waste and the operators soil their clothes when "piecing up" near the bowls. When the bowls are allowed to become too dirty, the operators are encouraged to adopt poor housekeeping habits.

(3) The operators may be allowed to clean the bowls while the machines are running. Although the work is simple and is not dangerous if the operator is alert, it can become dangerous if the operator becomes careless.

(4) Some inexpensive mechanical means may be sought to do the work, or at least to do a major portion of it.

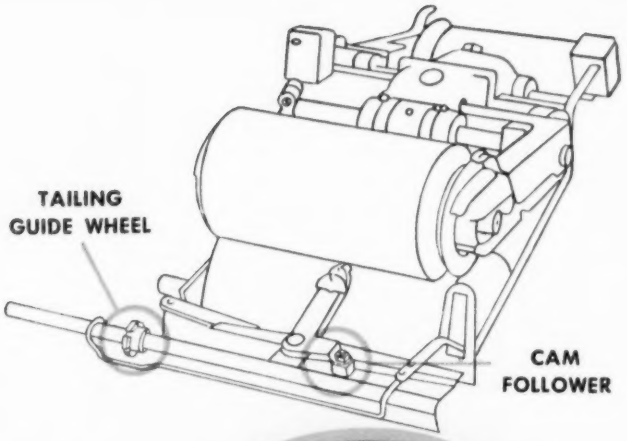
We chose the latter method and made a simple and effective cleaner out of old carriage bowl toe guards and a couple of hand brushes as shown below.

(Continued on page 185)



Parts molded of Du Pont NYLON on yarn uptwister

are strong, tough, wear-resistant...need no lubrication



The performance of these parts molded of Du Pont nylon plastic for the Unirail Uptwister is another example of why machinery manufacturers are turning to nylon parts for outstanding performance, low production and maintenance costs.

Du Pont nylon is resistant to both abrasion and impact. It is resilient . . . has low deformation under load . . . withstands continuous operation to 250°F. Nylon can be molded in thin sections and around inserts. And it has excellent bearing characteristics . . . requires little or no lubrication . . . greatly reduces danger of yarn contamination from oil or abraded particles.

Drafting parts, thread guides, verge plates, condensers and other textile machinery parts molded of Du Pont nylon have also proved efficient and economical in use.

Perhaps you can profit by using parts molded of Du Pont nylon. We'll gladly furnish the names of suppliers who will assist you in developing new parts or improving present ones. For further information, write:

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Polychemicals Department; District Offices:
350 Fifth Avenue, New York 1, New York
7 S. Dearborn Street, Chicago 3, Illinois
845 E. 60th Street, Los Angeles 1, California

Parts molded for Universal Winding Co., Providence, R. I., by Standard Plastics Co., Attleboro, Mass.

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DEPARTMENT
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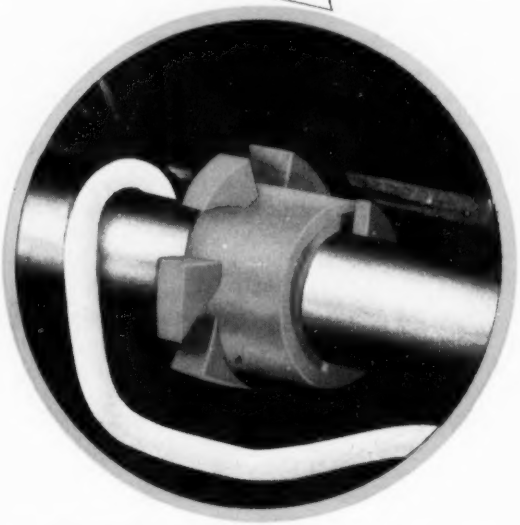


TAILING GUIDE WHEEL is easily installed . . . has high wear resistance. Du Pont nylon is readily molded in this intricate shape. Its smooth surface eliminates snagging.

CAM FOLLOWER is economically molded to close tolerances with Du Pont nylon. Maintenance is minimized since this nylon part needs no lubrication.

The device is attached to the counter faller shaft (as shown), and the movement of the carriage is utilized to clean the wheels automatically while the machine is in operation .

The operator moves the apparatus from carriage wheel to carriage wheel during the course of his duties and while "piecing up." By this means we were able to prevent lost production, keep the carriage bowls clean, and relieve our operators of an unpleasant task.

CONTRIBUTOR No. 8454

WIN $100

Readers of TEXTILE INDUSTRIES are invited to enter the current KINK CONTEST. You may win the $100 cash prize by submitting idea, time-saver, or production kink. For further details, see the announcement on page 175 in this issue.—Ed.

Another Answer to Query on Picker Lap Weight Indicator

Subject Briefed: *We should like to have opinions regarding the use of a lap weight indicator in a picker room. Can the same lap indicator readings be used for both American and Egyptian cottons despite the difference in moisture content? Part of our laps are stored for one or more days, and others are put on the cards right after doffing. What conditions would enter into these circumstances? Older pickers show greater weight fluctuations (not due to humidity) than new equipment. What factors should be considered in this instance? (CONTRIBUTOR No. 8486, August, 1952.)*

EDITOR TEXTILE INDUSTRIES:

In reply to CONTRIBUTOR No. 8486 and his problem, Use of Picker Lap Weight Indicators, here are the results of an investigation into this particular problem.

It is assumed that the indicator used by CONTRIBUTOR No. 8486 is of the animal skin type which gives a direct reading of lap weight. For example, suppose we wish to make a lap 16 oz per yd, 50 yd in length, and containing 6% moisture, rod allowance 3 lb. The indicator would show 53, which would be the weight set on the lap scale. As the moisture content of the room varies, so the indicated weight varies to compensate for the increase or decrease in moisture.

The investigation carried out was in conjunction with this type of indicator and *not* one utilizing a balance and a given weight of cotton.

As can be seen from the above comparison, the actual moisture content is in better control than the indicated moisture content. Data are still being collected, indicator and Brabender readings being obtained on each picker lap tested, and plotted on control charts.

Action taken after discussion was fairly simple; we assumed the lap contained 5% moisture, and used this as standard on the scale, eliminating the moisture indicator. However, we are still of the opinion that an indicator which will give the actual moisture content of each lap, is the best equipment to use in obtaining complete control over moisture content in the picker lap.

In answer to the questions raised by CONTRIBUTOR No. 8486:

Carry out comparison tests on the Egyptian and American cottons for moisture content. Bale moistures of 10% will probably be around 8% in the lap. As an interim measure, use a standard on the scale for each type of cotton, plainly marked with adhesive tape.

Moisture content varies, depending on the relative humidity; therefore, why worry about a variable. Base all calculations on either:

a. The dry weight of the lap, sliver or yarn.

b. A standard moisture content —say 6% in lap, sliver or yarn.

It is essential that the moisture content be found at all processes, and the sizings adjusted to meet the standard, either a or b.

One is constantly trying to find the variability inherent in each process. If the old pickers have been thoroughly overhauled, have had worn gears replaced, settings of beaters adjusted, fan speeds corrected, cone belts, friction pads, pedals, and all the other items working efficiently, then the pickers are possibly producing at their highest level. Therefore the standards will require adjusting to match the pickers' performance.

The necessary calculations for finding the standard deviation can be found in the A.S.T.M. Manual on Quality Control of Materials.

CONTRIBUTOR No. 8514

Comparison Test on Indicated Moisture Content and Actual Moisture Content of Picker Laps

Summary

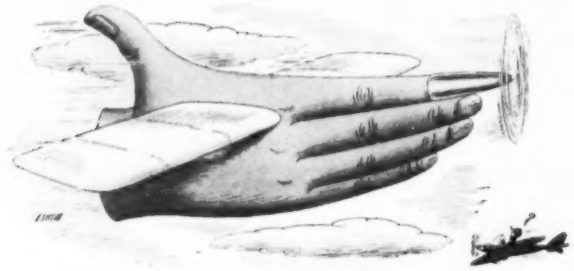
Humidifying system in both opening and picker rooms, single process pickers, air circulated back into rooms through filters.

No. of Samples: 79

Collected between March 12 and April 24, 1952

	Indicator	Brabender Oven
Average Moisture Content	5.29%	4.96%
Standard deviation	1.03%	.39%
Highest sample	7.50%	5.60%
Lowest sample	3.50%	4.10%
Control limits (3)		
U.C.L.	8.38%	6.13%
U.C.L.	2.20%	3.79%

The HANDSHAKE that goes 'round the world!



WE ARE PROUD and happy to have joined hands with the firms listed on this page.

They are our licensees. They have helped to establish the "Sanforized" trade-mark as a symbol of shrinkage control that is accepted and respected wherever cottons are worn. They have helped make it known in almost every country on the globe.

May their admirable work continue! May their tribe increase!

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CRYSTAL SPRINGS BLEACHERY.....Chickamauga, Ga.
DAN RIVER MILLS, INCORPORATED.....Danville, Va.
DEMPSEY BLEACHERY & DYE WORKS CORP.....Pawtucket, R. I.
ERWIN MILLS INCORPORATED.....Cooleemee, N. C.
ERWIN MILLS INCORPORATED.....Erwin, N. C.
ERWIN MILLS INCORPORATED.....Stonewall, Miss.
EUREKA PRINTING CO., INC.....Clifton, N. J.
EXETER MANUFACTURING COMPANY.....Exeter, N. H.
FAIRFOREST COMPANY—Eagle & Phenix Division.....Columbus, Ga.
FAIRFOREST COMPANY—Fairforest Fin. Div.....Spartanburg, S. C.
FIELDCREST MILLS (Div. of Marshall Field & Co., Inc.)..Spray, N. C.
FRUIT OF THE LOOM, INC.—Pontiac Finishing Plant....Pontiac, R. I.
GLENCOE MILLS.....Burlington, N. C.
GLENLYON PRINT WORKS.....Phillipsdale, R. I.
GOLD-TEX FABRICS CORP.—Mill Division.....Rock Hill, S. C.
GOODALL-SANFORD, INC.....Sanford, Maine
GRANITEVILLE COMPANY—Gregg Division.....Graniteville, S. C.
GRANITEVILLE COMPANY—Sibley-Enterprise Division..Augusta, Ga.
GREAT FALLS BLEACHERY & DYE WORKS, INC..Somersworth, N. H.
HAMPTON MILLS, INC.....Easthampton, Mass.
HARTSVILLE PRINT & DYE WORKS.....Hartsville, S. C.
HIGHLAND PARK MANUFACTURING CO.....Charlotte, N. C.
A. D. JUILLIARD & CO., INC. (New York Mills Div.)
New York Mills, N. Y.
KERR BLEACHING & FINISHING WORKS, INC.....Concord, N. C.
LANETT BLEACHERY & DYE WORKS.....West Point, Ga.
LANE COTTON MILLS COMPANY.....New Orleans, La.
LOWELL BLEACHERY, INC.....St. Louis, Mo.
LOWELL BLEACHERY SOUTH.....Griffin, Ga.
ANDREW Y. MICHIE & SONS CO.....Philadelphia, Pa.
THE MILLVILLE MANUFACTURING CO.....Millville, N. J.
MOORESVILLE MILLS.....Mooresville, N. C.
NATIONAL DYEING & FINISHING CORPORATION..Culver City, Cal.
NEW BRAUNFELS TEXTILE MILLS.....New Braunfels, Texas
NEWBURGH BLEACHERY.....Newburgh, N. Y.
NORTH CAROLINA FINISHING COMPANY.....Salisbury, N. C.
PACIFIC MILLS.....Lyman, S. C.
PACOLET MANUFACTURING CO.....New Holland, Ga.
PEE DEE TEXTILE COMPANY, INC.....Rockingham, N. C.
PEPPERELL MANUFACTURING COMPANY.....Lewiston, Me.
PEPPERELL MANUFACTURING COMPANY.....Lindale, Ga.
PEPPERELL MANUFACTURING CO.—Alabama Div.....Pepperell, Ala.
PILOT MILLS CO.....Raleigh, N. C.
PLYMOUTH FINISHING CO., INC.....Fall River, Mass.
PURITAN LOOMS, INCORPORATED.....Philadelphia, Pa.
THE RANDOLPH MILLS, INC.....Franklinville, N. C.
RENFREW BLEACHERY (The Abney Mills).....Travellers Rest, S. C.
RIEGEL TEXTILE CORPORATION—Ware Shoals Division
Ware Shoals, S. C.
RIEGEL TEXTILE CORPORATION—Trion Division.....Trion, Ga.
ROANOKE MILLS COMPANY—Mill No. 1.....Roanoke Rapids, N. C.
ROBERTSON BLEACHERY & DYE WORKS.....New Milford, Conn.
ROCK HILL PRINTING & FINISHING CO.....Rock Hill, S. C.
THE RUSSELL MFG. CO., INC.....Alexander City, Ala.
SAYLES-BILTMORE BLEACHERIES, INC.....Biltmore, N. C.
SAYLES FINISHING PLANTS, INC.....Saylesville, R. I.
PHILIP L. SHEERR & SONS.....Frankford, Philadelphia, Pa.
SLATERSVILLE FINISHING CO., (Division of Kendall Mills)
Slatersville, R. I.
SOUTHBRIDGE FINISHING COMPANY.....Southbridge, Mass.
SOUTHERN BLEACHERY & PRINT WORKS, INC.....Taylors, S. C.
SPRINGS COTTON MILLS (Grace Bleachery).....Lancaster, S. C.
STANDARD BLEACHERY & PRINTING CO., INC..Carlton Hill, N. J.
J. P. STEVENS & CO., INC.—Appleton Company Div....Anderson, S. C.
J. P. STEVENS & CO., INC.—Appleton Company Div....Anderson, S. C.
Frankford, Philadelphia, Pa.
J. P. STEVENS & CO., INC.—Delta Company Division
J. P. STEVENS & CO., INC.—Industrial Cotton Mills Co. Div.
Rock Hill, S. C.
J. L. STIFEL & SONS, INC.....Wheeling, W. Va.
SUMMERDALE DYEING & FINISHING CO., INC....Holmesburg, Pa.
SWIFT MANUFACTURING COMPANY.....Columbus, Ga.
TEXAS TEXTILE MILLS.....McKinney, Texas
TEXAS TEXTILE MILLS.....Waco, Texas
TEXTRON, INC.—Lonsdale Div.....Lonsdale, R. I.
TEXTRON, INC.—Nashua Division.....Nashua, N. H.
TEXTRON-SOUTHERN, INC.—Finishing Div.....Anderson, S. C.
THOMASTON MILLS—Bleachery Div.....Thomaston, Ga.
UNCAS PRINTING & FINISHING CO., INC.....Mechanicsville, Conn.
THE UNITED STATES FINISHING COMPANY.....Norwich, Conn.
WERTHAN BAG CORPORATION.....Nashville, Tenn.
WHITE BROTHERS, INC.....Winchendon Springs, Mass.
YATES BLEACHERY CO.....Flintstone, Ga.

•SANFORIZED• Cluett, Peabody & Co., Inc. permits use of its trade-mark "Sanforized," adopted in 1930, only on fabrics which meet this company's rigid shrinkage requirements. Fabrics bearing the trade-mark "Sanforized" will not shrink more than 1% by the Government's standard test. **10 East 40th St., New York 16, N. Y. • MUrray Hill 5-5270**

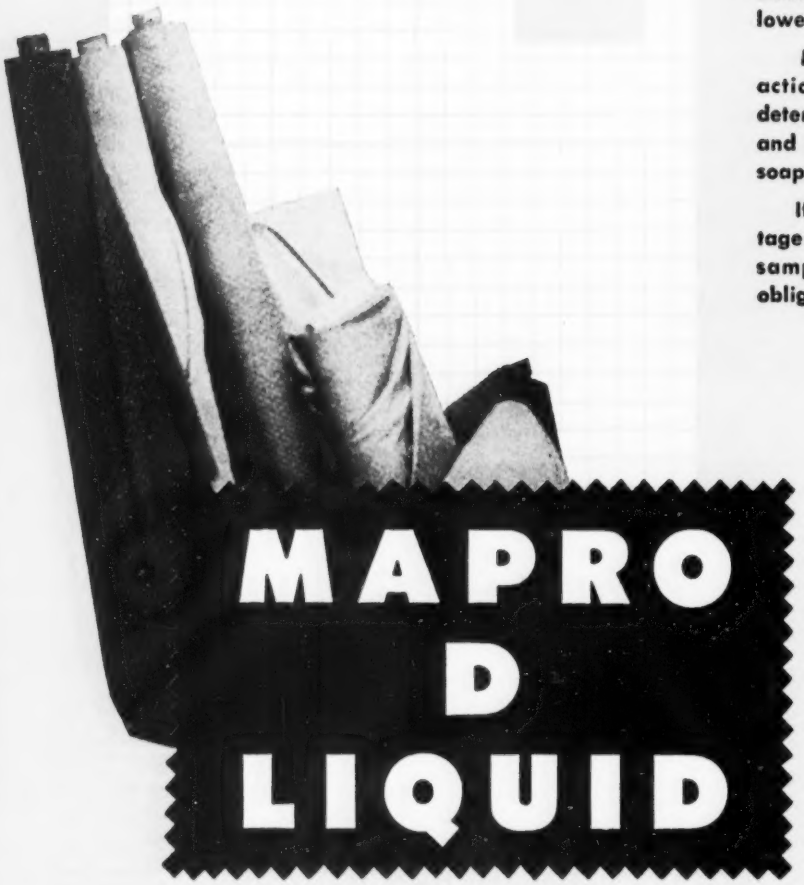
FIRST CHOICES IN

ONE TEXTILE DETERGENT

In dyeing and scouring, as a detergent and for wetting and foaming action, **MAPRO D LIQUID** has proven itself superior to other detergents on the market and at considerably lower cost.

MAPRO D LIQUID offers faster wetting action, faster and better foaming, greater detergency and compatibility with hard water and acids, and handles far more easily than soaps and other detergents.

If the check list below offers you any advantage over your present detergent, ask for a test sample or even a mill-scale run, without obligation.



In wetting out, emulsifying and detergent operations; in scouring cotton, rayon, acetate and other yarns and piece goods; as a dyeing assistant, and as a replacement for soap in other operations.

MAPRO D LIQUID *offers:*

- Faster wetting action
- Better detergency
- Improved dispersing and suspending action
- Easier handling than soap—no cooking or boiling, instant foaming
- Compatibility with hard water, phosphoric and acetic acids
- Unusually fast and thorough rinsing
- Lower initial and in-use cost

ONYX OIL & CHEMICAL COMPANY

TEXTILE DIVISION

WARREN & MORRIS STS., JERSEY CITY 2, N. J.

CHICAGO • BOSTON • CHARLOTTE • ATLANTA

In Canada: ONYX Oil & Chemical Co., Ltd., Montreal, Toronto, St. Johns, Que. For Export: ONYX International, Jersey City 2, N. J.

Colored Cards Mark Hose Size

EDITOR TEXTILE INDUSTRIES:

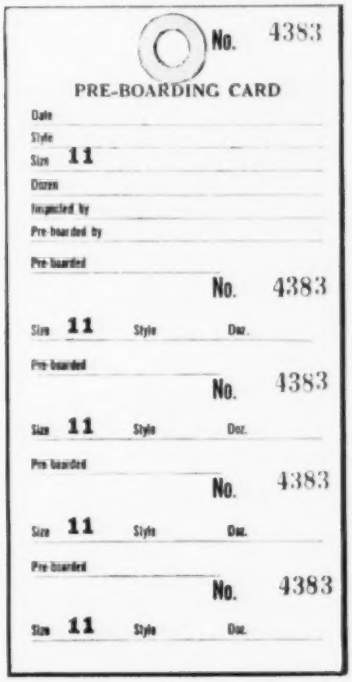
In identifying hosiery sizes in various lots in process in our mill a few years ago, it was necessary to pull out the master ticket and look at the size stamped thereon. This procedure consumed too much time inasmuch as it was necessary to check sizes several times daily.

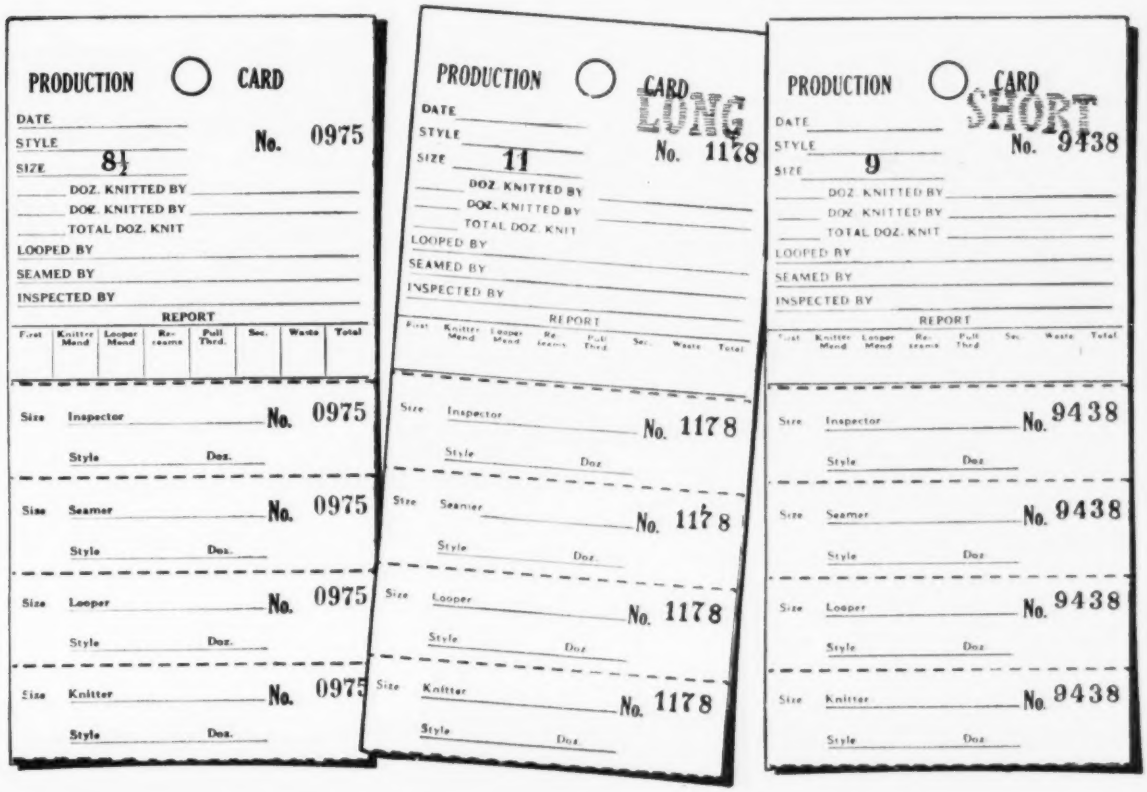
The idea occurred that if the master ticket for each size was on colored paper, then the various sizes could be identified at a distance and without closely inspecting the tickets. Accordingly, a color system was agreed upon for the knitting room, grey department, preboarding room, and the dye-house.

The size 8½ ticket is white, size 9 is blue, size 9½ is yellow, size 10 is green, 10½ is red, and size 11 is orange. The mill often produces special lengths, such as "short" or "long", and it is only necessary to stamp each ticket with a rubber stamp to identify the lot as such. For instance, the size 9 ticket is stamped "short", meaning a short length stocking; whereas the size 11 is stamped "long", meaning extra length. Unless the tickets are stamped, the hosiery is considered standard length.

The color system used on the master tickets has been proved satisfactory in helping expedite goods in process, and also in preventing mixed sizes. The master ticket has served its purpose when the goods are inspected and the report is made by the inspector. A preboarding ticket of similar color is placed on each lot by the inspector, and is then routed through the preboarding room to the dye-house. The color system has no disadvantages, helps prevent mixed sizes, and permits quick identification of goods in process or storage without handling.

CONTRIBUTOR No. 8509





Richards-Wilcox "Zig-Zag" Continuous Power Conveyor can save you *Thousands of dollars Yearly!*

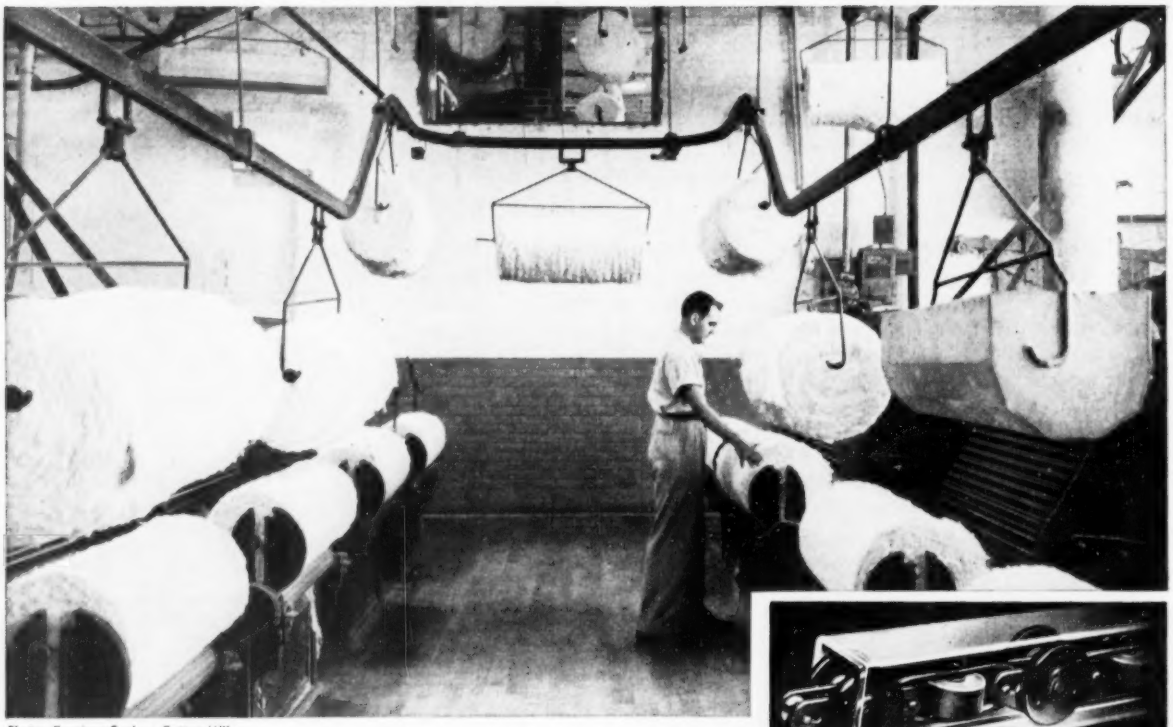
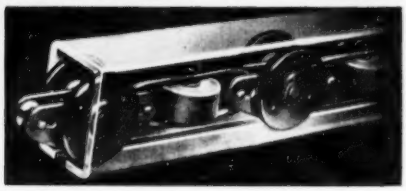
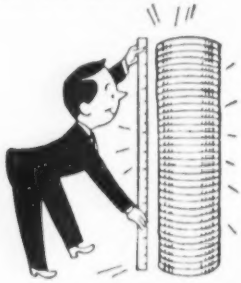


Photo: Courtesy Springs Cotton Mills





Yes, it's a proved fact that R-W Zig-Zag Continuous Power Conveyors can help save thousands of dollars in operating costs, and help raise production to boot. Patented ZIG-ZAG operates just like "water through a pipe"—it's a steel tube-like track through which travels a specially constructed motor-driven chain carrying unit loads up to 125 pounds each.

Zig-Zag solves handling problems in crowded or confined areas—increases efficiency and adds economy to any production line.

Engineered for economy and flexibility, here's what Zig-Zag has to offer you—

- Horizontal and vertical units alternate in a continuous chain traveling through special steel tubing.
- SAFE—all moving parts fully enclosed.
- Complete flexibility for installation in any plant. Easily installed, easily changed to conform to plant alterations.
- Low first costs. Low Power Factor.
- Standard horizontal or vertical curves—two-foot radius.

For complete information consult, without obligation, our engineers at the Richards-Wilcox office nearest you.

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"

AURORA, ILLINOIS, U.S.A. *Branches in all principal cities*

SLIDING DOOR HANGERS & TRACK • FIRE DOORS & FIXTURES • GARAGE DOORS & EQUIPMENT
INDUSTRIAL CONVEYORS & CRANES • SCHOOL WARDROBES & PARTITIONS
ELEVATOR DOOR OPERATING EQUIPMENT

RICHARDS WILCOX R-W AURORA

1880 1953

OVER 73 YEARS

Cleaner Cotton with Less Beating

(Continued from page 95)

System. The Super-Jet Cleaners, on account of the large volume of high velocity air handled, are exceptionally good dusters, and cleaner card rooms and spinning rooms are noticed after the installation of this system.

Aldrich Machine Works, Greenwood, S. C.

For additional data, request item B-114, using Handy Return Card on page 232.

Powerful Black Light Reveals Defects of Materials in Process

A new and powerful black light unit in the 3660 angstrom range is valuable in revealing faults in raw materials and processed work, distinguishing types of fabrics, detecting faults in dyeing, matching lingerie shades, examining weakening of shade in washing of dyed textiles, and revealing oil stains.

Known as the Cooper Hewitt 3660 Black Light Unit, it can be supplied for flood or spot focus, and the swival arm allows settings and adjustments of the lamp in practically all directions and positions.

Cooper Hewitt Electric Co., 720-732 Grand St., Hoboken, N. J.

For additional data, request item B-101, using Handy Return Card on page 232.

Tenter Housing Has Two Fans in Each Penthouse

A new tenter housing features a completely redesigned heating and fan system. The most important single advance in the design of this housing is the use of two fans in each penthouse. This makes possible maximum air movement and results in exceptionally high drying capacity.

As a replacement for out-of-date equipment this housing will, in many cases, increase finishing department output 50 to 100%. This is often enough to pay for the installation in two years. Air circulation is adjustable to suit individual conditions.

Complete accessibility to the interior of the housing is a feature which aids materially in cleaning and maintenance.

An entirely new type panel construction is used which provides not only a smooth, sleek appearance but, since the interior is free of unnecessary structural members, increases the cleanliness inside the housing.

The design of the housing has been standardized for shorter delivery. Where necessary the standard design is adapted to meet individual plant requirements.

Proctor & Schwartz, Inc., 610 Tabor Rd., Philadelphia 20, Pa.

For additional data, request item B-102, using Handy Return Card on page 232.

NEW Equipment AND MATERIALS

Other items are described on pages 93 and 95

Black Thick-and-Thin Acetate Yarn Available

The addition of black to Celanese thick-and-thin Celaperm acetate yarn colors is announced, along with a substantial increase in the production facilities assigned to this pigmented thick-and-thin yarn.

The new black will be available in various deniers, and the yarn will be made in the same exclusive Celanese slub construction that gives to texture a distinctive random pattern.

Celanese Corp of America, 180 Madison Ave., New York 16, N. Y.

For additional data, request item B-108, using Handy Return Card on page 232.

112" Simplex Knitter Operates at 300-400 cpm

A new Simplex tricot machine now being manufactured is built in 112" knitting width and is designed to operate at speeds of 300 to 400 cpm.

Incorporated in the machine is a positive warp drive mechanism which contributes to the production of more uniform and better fabrics.

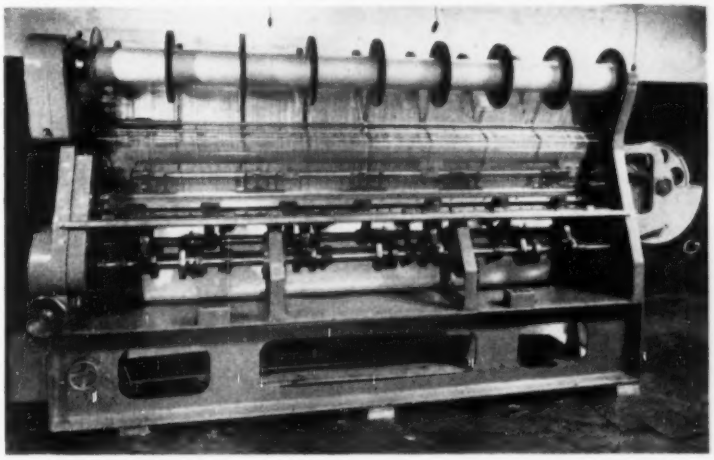
Stud wheels to obtain new knitting effects are standard equipment. Conventional pattern wheels may also be employed.

The machine accommodates warp beams up to 21" in diameter.

Alfred Hoffman & Co., 629-635 Fifty-ninth St., West New York, N. J.

For additional data, request item B-302, using Handy Return Card on page 232.

The 112" Simplex tricot knitting machine by Alfred Hoffman.



NEW Equipment AND MATERIALS

Versatile, High-Temperature Package Dyeing Machine

The Mezzera high-temperature Package Dyeing Machine offers dyeing with liquids circulating in a closed circuit under static pressure at temperatures of up to 120 C.

The centrifugal pump maintains the complete efficiency, even at elevated temperatures, due to the internal static pressure by means of which it is possible to overcome the harmful effects of the increased vapor tension and to prevent the liquor from boiling.

In high temperature dyeing the dispersion of most colors is greatly improved, thus favoring a perfect penetration and resultant uniformity, even during a very short dyeing period. A further distinguishing feature of this process resides in the fact that blends such as wool-nylon, wool-acetate, wool-viscose, etc., can be dyed with common dyes at high temperature with greater ease and a high degree of uniformity.

A small sampling tank, which can be closed from the circuit, permits the checking of shades of the material while the machine is under static pressure. Another tank allows for the addition of colorants and chemicals without interrupting the operation of the machine and without decreasing the static pressure.

The apparatus is provided with a heat exchanger which may also be used for cooling to such a temperature as to allow the machine to be opened when the treatment is complete.

Benefits to be derived by use of the machine include: (1) Handles every fiber and every class of colorant; (2) perfect dyeing results are obtained due to uniform distribution of the dyeing liquors and to quick penetration, assuring a high degree of uniformity; (3) savings in fuel, electric power, dyes, and chemicals; (4) perfect preservation of materials and consequent highest winding output due to the well designed package system which permits swelling of the material both longitudinally and radially; (5) versatility made possible by design of carriers—carded stock and worsted tops, as well as hanks, can be dyed in the machine; (6) simplicity of operation.

Ernest L. Frankl Associates, 22 East 40th St., New York 16, N. Y.

For additional data, request item B-111, using Handy Return Card on page 232.

Light-Fast Violet for Printing Cottons, Rayons

A new violet dyestuff well adapted for application printing of cotton and rayon has exceptional light fastness and provides the additional advantage of retaining its light fastness in the presence of TBL finish, although the shade goes somewhat blue and duller.

Designated Solophenyl Violet BRL, it has good solubility and yields a clear paste free of specks. Fabrics printed with it have good fastness to washing.

Geigy Co., Inc., 89-91 Barclay St., New York 8, N. Y.

For additional data, request item B-115, using Handy Return Card on page 232.

NON-FLUID OIL
TRADE MARK REGISTERED

For More and Better Sliver at Less Cost

NON-FLUID OIL prevents wear and protects card adjustment because it stays IN bearings and OFF card clothing and cotton. Drip-less and waste-less, NON-FLUID OIL costs you less because a smaller quantity gives longer, safer lubrication.

NON-FLUID OIL stays IN comb-boxes and lubricates dependably while ordinary oil leaks out and wastes. With ordinary oil, cards wear and lose adjustment quickly, causing uneven sliver from cards which gives you trouble all through the mill.

Insist on NON-FLUID OIL. Let us send you a sample for your on-the-job test, without cost or obligation.

New York & New Jersey Lubricant Co.
292 Madison Avenue, New York 17, N. Y.
WORKS: Newark, N. J.

SOUTHERN DISTRICT MANAGER: Lewis W. Thomason, Jr., Charlotte, N. C.
WAREHOUSES: Atlanta, Ga. — Birmingham, Ala. — Charlotte, N. C. — Chicago, Ill. — Columbus, Ga. — Detroit, Mich. — Greensboro, N. C. — Greenville, S. C. — Providence, R. I. — St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

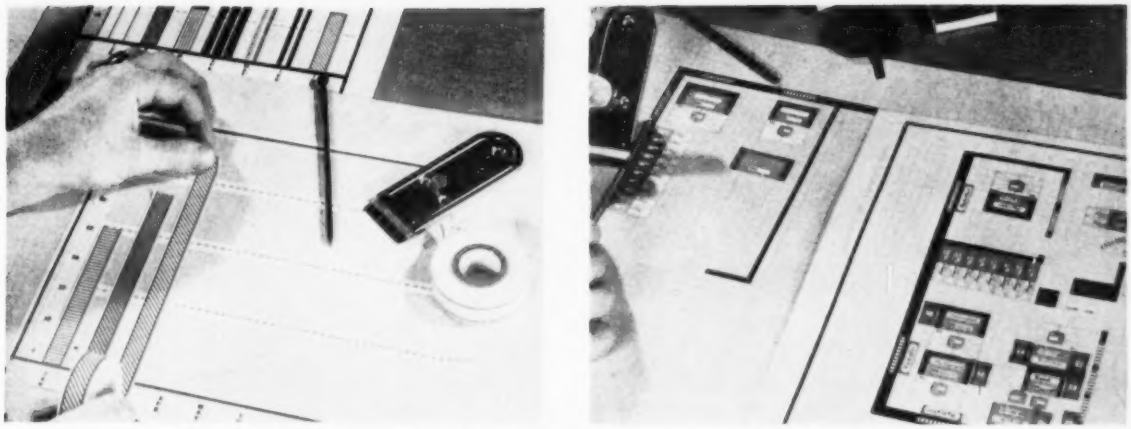


Chart-Pak kit is used to make a statistical chart (left) and floor plan (right).

Preparation of Statistical Charts and Floor Plans Made Easy

A simple, time-saving method produces statistical charts and floor plans with printed tapes and tabs which adhere to a strong Vinylite plastic rigid sheet. Grid lines printed on this sheet in non-photographic blue, guide the chart maker in laying down adhesive-backed tapes bearing printed months, figures, and bars of various widths and patterns. Reproduced by photostat or photo-offset, the chart can be easily corrected and brought up to date.

For organizational charts there are different sizes of box tabs in which data may be typewritten. For office floor plans, templates representing office equipment and working space, scaled ¼-inch to the foot, are positioned, then stripped of the adhesive-protecting backing and secured to the mounting board.

Available in kits for each use or separately, the materials include large mounting boards in protective envelopes made of tough clear Vinylite plastic sheeting, tape knives, tools to remove backing from tapes and tape from boards, and various tapes, tabs, and templates.

Chart-Pak, Inc., 104 Lincoln Ave., Stamford, Conn.

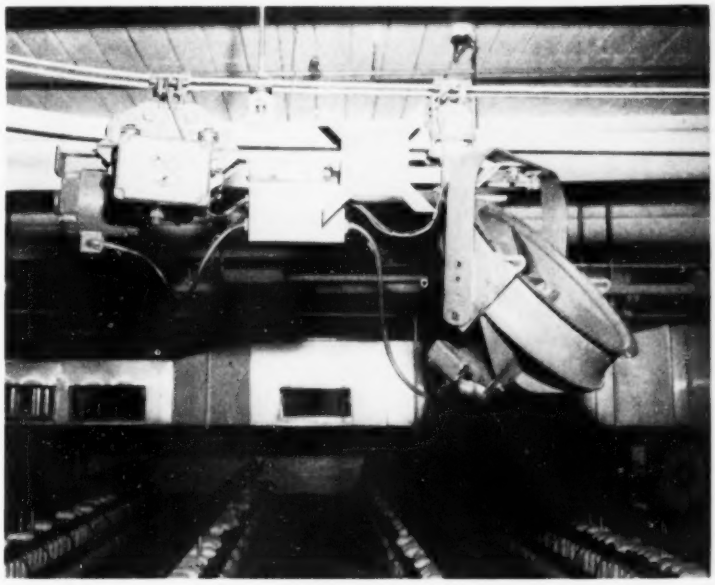
For additional data, request item B-401, using Handy Return Card on page 232.

Ceiling Cleaner Automatically Provides Coverage on Both Sides of Track

Lint accumulations on ceilings, lights, piping, ductwork, or other surfaces within range of its blast are prevented by the Louden Ceiling Cleaner, a unit which continually travels around the area on an overhead track.

Built with an automatic indexing device to provide an air blast on both sides of the track by increments of 15 and 30 degrees, it eliminates the human element involved in adjusting fan coverage. Adjustment provides for fan blast from horizontal to 45 degrees off horizontal.

Among the benefits to be derived from the use of this automatic ceiling cleaner are: Slubs due to lint accumulations falling into processing machines are avoided; dead air pockets are broken up, aiding the equal distribution of humidity throughout the area; cleaning costs are reduced; accident and fire hazards are decreased; employee morale and overall cleanliness of room are improved.



The Louden Machinery Co., Fairfield, Iowa.

For additional data, request item B-402, using Handy Return Card on page 232.

specify DOW CORNING SILICONE GREASE 44 to reduce maintenance and increase the life of ball bearings operating at high temperatures

In the bearings of dryers, Dow Corning Silicone Grease 44 is used to reduce the relubrication schedule from once every 8 hours to once every 3 months. Operating temperatures are in the range of 350°F. Dow Corning Silicone Grease 44 Medium is now specified for all dryers in a large textile plant after 2 years of testing in National and Proctor & Schwartz machines.

In the bearings of Sanforizers. Experience in a large textile finishing plant indicates that Dow Corning Silicone Grease 44 can be used to reduce the relubrication schedule on main cylinder bearings from once every 8-hour shift to once every 30 to 45 shifts.

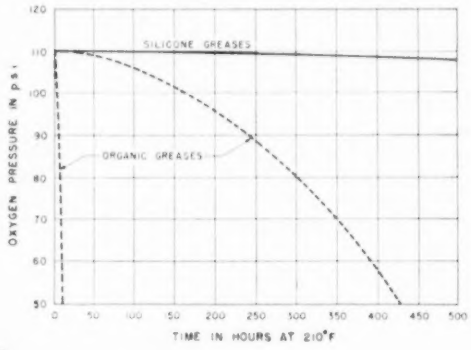
In the bearings of slashers. Two years of experience in textile mills indicates that Dow Corning Silicone Grease 44 Light has a service life of about 3 months at temperatures up to 350°F in closed-type Uxbridge Slashers.

In motor bearings, Dow Corning Silicone Grease 44 has many times the life of high temperature petroleum greases at temperatures in the range of 300° to 350°F. In permanently sealed or "cartridge" type bearings Dow Corning Silicone Grease 44 Light has a life expectancy of at least 5 years. That has been confirmed in thousands of motor bearings installed during the past 5 years by one of the major motor manufacturers.

In the bearings of oven conveyor systems, Dow Corning Silicone Grease 41 gives very satisfactory service even under conditions so severe that continuous, automatic oiling with the best high temperature organic lubricants could not keep bearings operable.

here's why . . . . . **1** Dow Corning Silicone Greases have extraordinary resistance to oxidation as indicated by the data given in Figure 1. After 500 hours of exposure to oxygen under a pressure of 110 psi at 210°F in contact with brass as a catalyst, a pressure loss of only 1.5 pounds was registered in the Norma-Hoffman bomb testing of these silicone greases.

OXIDATION RESISTANCE OF SILICONE AND ORGANIC GREASES IN THE PRESENCE OF BRASS AS INDICATED BY OXYGEN-BOMB TEST RESULTS



2 Dow Corning Silicone Greases show relatively little bleed or evaporation at temperatures in the range of 300-400°F as shown by the data given in Table I.

3 Dow Corning Silicone Grease 44 is serviceable at temperatures from —40 to 400°F in ball bearings having a maximum speed factor (bore in mm times rpm) of 150,000 to 225,000. The worked penetrometer (ASTM D217-48) for Dow Corning Silicone Grease 44 is: light consistency 300-320, medium, 250-270. Melting points are above 410°F; minimum flash point is 600°F. Ask for data sheet BL-2.

TABLE I

RELATIVE BLEED AND EVAPORATION OF VARIOUS GREASES

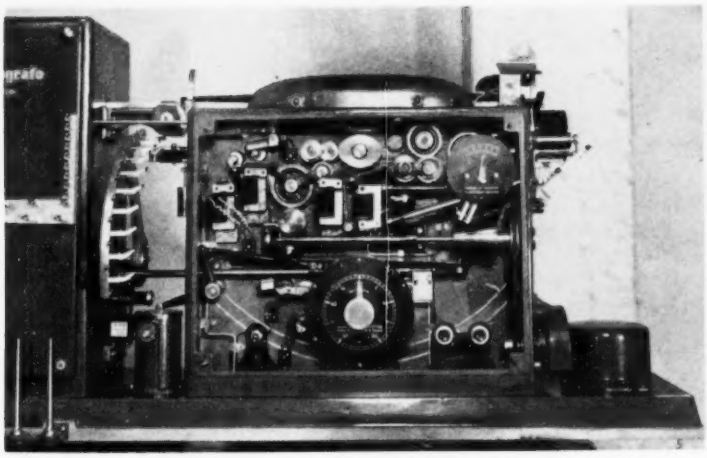
Temperature in °F	Test[1]	Dow Corning Silicone Grease 44, Light Consistency	High Temperature Petroleum Greases A	B
300	Bleed, %	1.3	2.9	0.2
	Evaporation, %	0.6	2.9	13.4
	Total loss, %	1.9	5.8	13.6
390	Bleed, %	1.0	7.8	Nil
	Evaporation, %	3.5	15.4	39.8
	Total loss, %	4.5	23.2	39.8

[1] Values determined with equipment specified in AN-G-sa, except that test samples were held at test temperatures for 24 hours.

DOW CORNING CORPORATION DOW CORNING SILICONES **MIDLAND, MICHIGAN**

Atlanta • Chicago • Cleveland • Dallas • New York • Los Angeles • Washington, D.C.

In Canada: Fiberglas Canada Ltd., Toronto • In England: Midland Silicones Ltd., London



Close-up of Autodinamografo with cover removed (Stellite American).

Improved Model of Multiple Tensile Strength and Elongation Tester

An improved model of the Autodinamografo, the Italian-made multiple tensile strength and elongation tester and recorder (described in TEXTILE INDUSTRIES for October, 1949, page 153) is available.

Strength and elongation tests on yarns from seven bobbins are automatically made in one operation. Seventy tests (ten tests from seven bobbins) are made in sequence while results are recorded and mechanically averaged.

Distance between clamps is made according to the new ISO standard of 20 inches.

Stellite American Corp., 60 East 42nd St., New York 17, N. Y.

For additional data, request item B-110, using Handy Return Card on page 232.

Central Record of Machine Performance

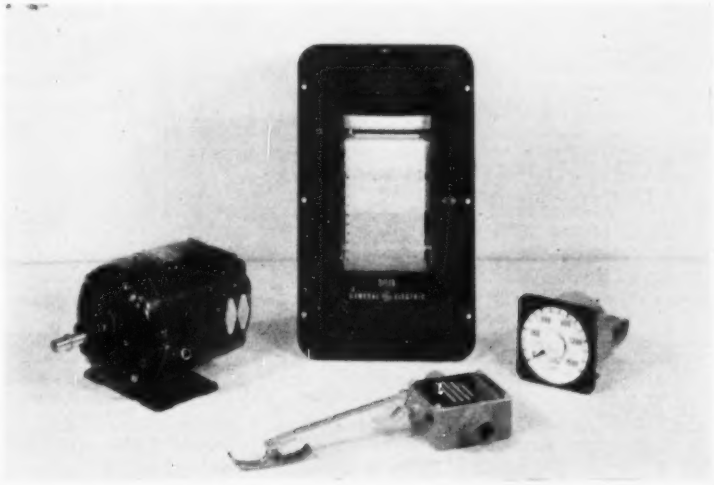
New tachometer kits, containing all the components necessary to provide instantaneous and permanent records of machine performance at a central location, have been announced by the General Electric Company's Meter and Instrument Department.

Central location of the new kits' recording equipment eliminates time-consuming production-line trips by supervisory personnel, the manufacturer claims, permitting up-to-the minute checks of operating equipment. Permanent recording feature aids preventive maintenance scheduling, and prevents excessive manufacturing losses by automatically shutting down machinery in case of breakdowns.

Four kits are available in the line. A typical installation would include a d-c tachometer generator, a tachometer indicator, a switchboard-type tachometer recorder, and (where a continuous web of material is produced) a web-break detector. Audible or visual alarm systems are optional accessories.

Kits are said to be particularly suited for use in the continuous process industries such as textile, etc.

General Electric Co., Meter and Instrument Department, Schnectady 5, N. Y. (B-501).



Components of one General Electric tachometer kit for providing instantaneous and permanent records of machine performance.

Improved Card Drive Has Longer Life with Less Maintenance

The American Individual Cotton Card Drive has undergone modifications to insure longer life with less maintenance.

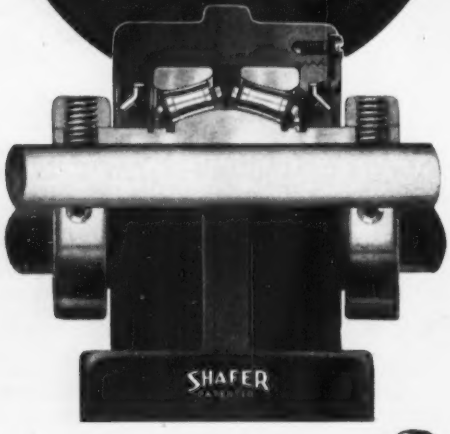
In the card drive speed reducer, the hardness of pinions and gears has been increased by almost 100%, insuring greater gear life. High speed pinion bearings have been replaced with larger bearings to increase bearing life.

The card drive clutch modifications include a new clutch collar design whereby the input shaft collar has been finned to protect the input seal from lint.

The American Pulley Co., 4200 Wissahickon Ave., Philadelphia 29, Pa.

For additional data, request item B-119, using Handy Return Card on page 232.

THE *Rugged* JOBS ARE "*Routine*" FOR SHAFER BEARINGS



Throughout the land Shafer Roller Bearings are increasing the nation's productive capacity—carrying big loads, saving money and power, reducing down time and maintenance costs wherever America's heaviest duty power transmission equipment is at work.

Shafer Bearings handle these tough jobs better because they are engineered to-the-job—to provide *longer* life, *greater* dependability and *lower* operating costs under the severest working conditions. Integrally self-aligned, they have full radial-thrust and greater reserve shock load capacities under all conditions of misalignment; are equipped with self-centering "Z" housing seals and Micro-Lock 12-point adjustment. See the Shafer bearing specialist near you . . . or write us direct . . . for complete information and engineering consul on a no-obligation basis. SHAFER BEARING CORPORATION, 801 Burlington Avenue, Downers Grove, Illinois.

Pillow Blocks

Flange Units

Flange Cartridge Units

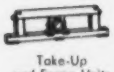
Cartridge Units

Duplex Units

Take-Up Units

SHAFER
SELF-ALIGNING
ROLLER BEARINGS

Unmounted Bearings


Take-Up and Frame Units

Aircraft Control Bearings

The Most Nearly Indestructible BOBBIN on the Market

THE NEW PRECISION
NEB-800
PLASTIC COATED
THE PREMIUM BOBBIN-FOR PREMIUM WORK
made to YOUR specifications

- *Plastic-coated. Will not chip or crack*
  THE NEW NEB-800 CAN TAKE IT!
- *Bobbins are subjected to much abuse*
  THE NEW NEB-800 CAN TAKE IT!
- *Synthetics do exert tremendous crush and pull*
  THE NEW NEB-800 CAN TAKE IT!
- *Steam at 200° is tough on bobbins*
  THE NEW NEB-800 CAN TAKE IT!
- *High speed is essential today*
  THE NEW NEB-800 CAN TAKE IT!

SATIN-SMOOTH, UNBELIEVABLY TOUGH, the New NEB-800 is the product of long, careful research, testing, proving. It is the most nearly indestructible bobbin on the market.

PRECISION N·E·B BOBBINS

Write for your samples!

PRECISION AUTOMATIC LOOM BOBBINS for Cotton and Spun Rayon, Silk and Synthetics, Woolens and Worsteds.

Precisioned to Size — Precisioned for Concentricity
Precisioned for YOUR Spindles . . .

★

NEW ENGLAND BOBBIN & SHUTTLE CO.

Makers of PRECISION *Automatic Loom Bobbins*
NASHUA, NEW HAMPSHIRE

Representatives:

HENRY H. HERSEY, Norwood Place, Greenville, S. C.
HARRIS MFG. COMPANY, 443 Stonewall St., S. W., P. O. Box 1982, Atlanta, Ga.
H. W. CURTIS, 735 W. Crescent Ave., Allendale, N. J.
THE CHARLOTTE SUPPLY CO., Charlotte, N. C.

Export Agents
VANDERBURGH & CO., INC., 25 Beaver Street, New York 4, N. Y.

HARRIS & UNDERHILL, 446 Statler Building, Boston, Mass.

NEW Equipment AND MATERIALS

Plastic vibrator blocks (Synthane).

Plastic Vibrator Blocks for Draper Looms Last 60 Times Longer

Mill tests are reported to indicate that Draper loom users now can expect to get 60 times longer life out of a new Lantuck-based laminated plastic vibrator block than they normally get from wood vibrator blocks, at only six to eight times the cost.

The new blocks completely eliminate the damage to other parts of the loom, especially whiproll cams and followers. They also reduce heavy losses of production that occur when looms are stopped for repairs or replacement of parts.

Synthane Corp., Oaks, Pa.

For additional data, request item B-120, using Handy Return Card on page 232.

New Humectant Has Many Applications

Hartexsol C is a new humectant which is more effective than c.p. glycerine in attracting moisture. Available as a water-white viscous liquid, it shows approximately 10% greater hydroscopicity than glycerine.

Examples of the application of the product follow:

(1) In the knit goods trade as an additive in weighting to eliminate dusting and powdering of the weighter and to soften the hand.

(2) In textile printing as an ingredient of the print paste for vat dyes in order to retain moisture in the ager.

(3) In warp sizing to prevent the sized warps from becoming too dry.

(4) In starch glues to make the

TC TENNESSEE CORPORATION

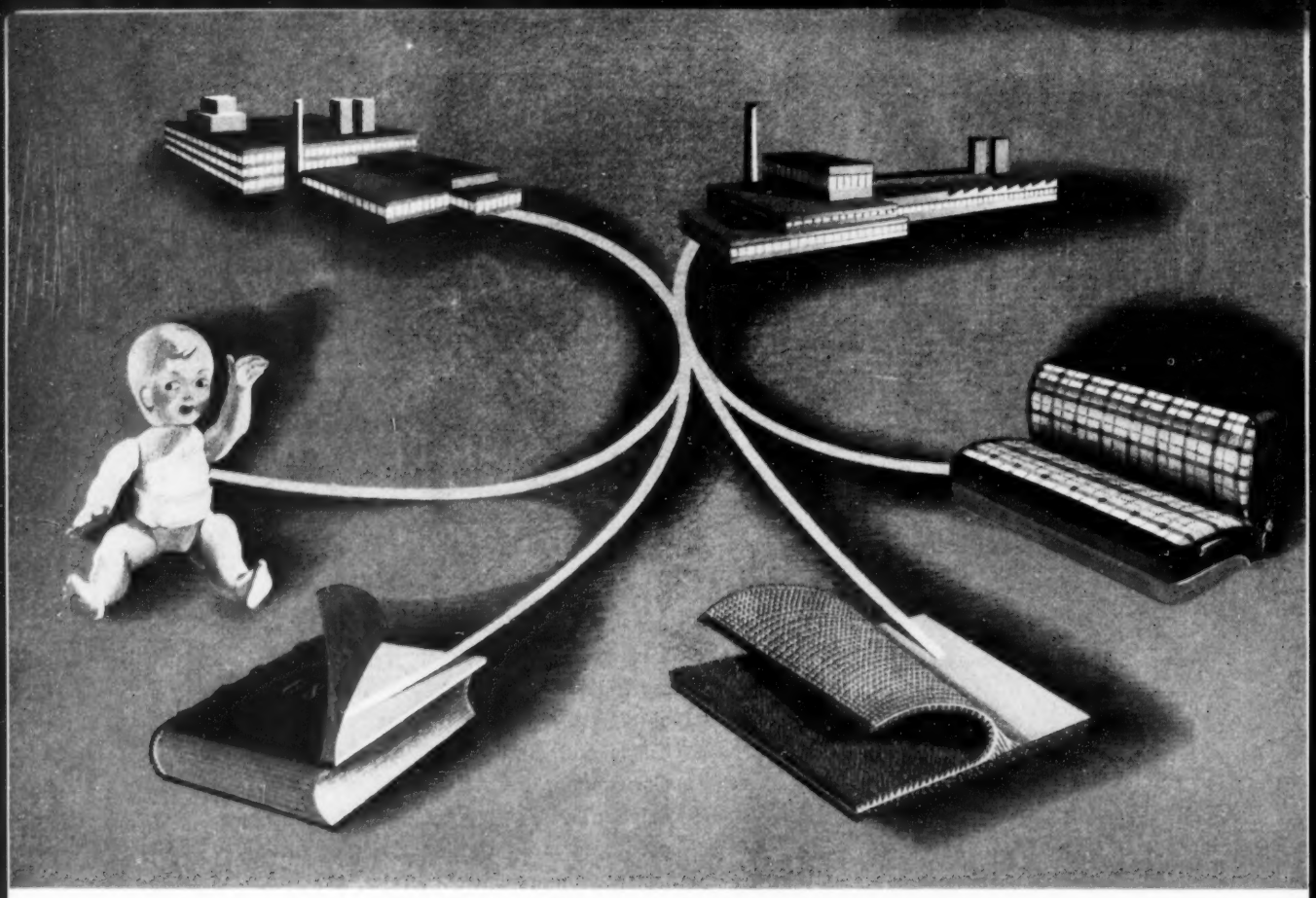
Sulphur USERS!

The chemical with so many uses, Tennessee Liquid Sulphur Dioxide is now available in Cylinders, Ton Drums, Truck Tanks and Tank Cars. The Tennessee Corporation, producers of highest quality Sulphur Dioxide, is located in the textile producing area, assuring closer contact, faster and more efficient service.

SULPHUR-DIOXIDE
HIGHEST QUALITY
SO_2

Let us consult with you on the many uses of Sulphur Dioxide. Perhaps Sulphur Dioxide can solve some of your problems . . . 'phone, wire or write Tennessee Corporation, Grant Building, Atlanta, Georgia.

TENNESSEE CORPORATION
617-29 Grant Building, Atlanta, Georgia



For latices tailored to your needs

—*it's Naugatuck Lotols*®

Now — available from either the Naugatuck, Connecticut, or the Los Angeles plant—ready-to-use Lotols tailored to your needs! Save time and trouble. Rely on Naugatuck's Lotols to provide the *exact* latex qualities your product or process requires.

Compounded of natural and synthetic latices by the world's leader in the field of fine latices, Naugatuck Lotols are *custom-made* to fit your most exacting requirements. They provide a uniformity of quality that is unexcelled.

Used for paper coating, Lotols improve the paper's toughness, finish, and wet strength. As a backing or sizing for fabrics, they add strength and wearability. In carpets, Lotols provide stiffening, give dimensional stability, improve strength and resilience, and prevent weave and slippage. In dipping, such as gloves, dolls, toys, drug sundries, and in many other applications, Lotols increase product quality...decrease manufacturing difficulties.

Whatever *your* product or process, the chances are that Lotols will improve it. For further information on Naugatuck Lotols, or expert technical assistance with any bonding, coating, dipping, or saturating problem, **write to the address below.**

NAUGATUCK Chemical

DIVISION OF UNITED STATES RUBBER COMPANY

312 ELM STREET — NAUGATUCK, CONN.

BRANCHES: Akron • Boston • Charlotte • Chicago • Los Angeles • New York • Philadelphia • Memphis • *In Canada:* Naugatuck Chemicals, Elmira, Ont.

Rubber Chemicals • Aromatics • Synthetic Rubber • Plastics • Agricultural Chemicals • Reclaimed Rubber • Latices

paste smoother and prevent separation of water from the paste caused by contraction of the starch.

(5) As a general hydroscopic and plasticizing agent.

Hart Products Corp., 1440 Broadway, New York, N. Y.

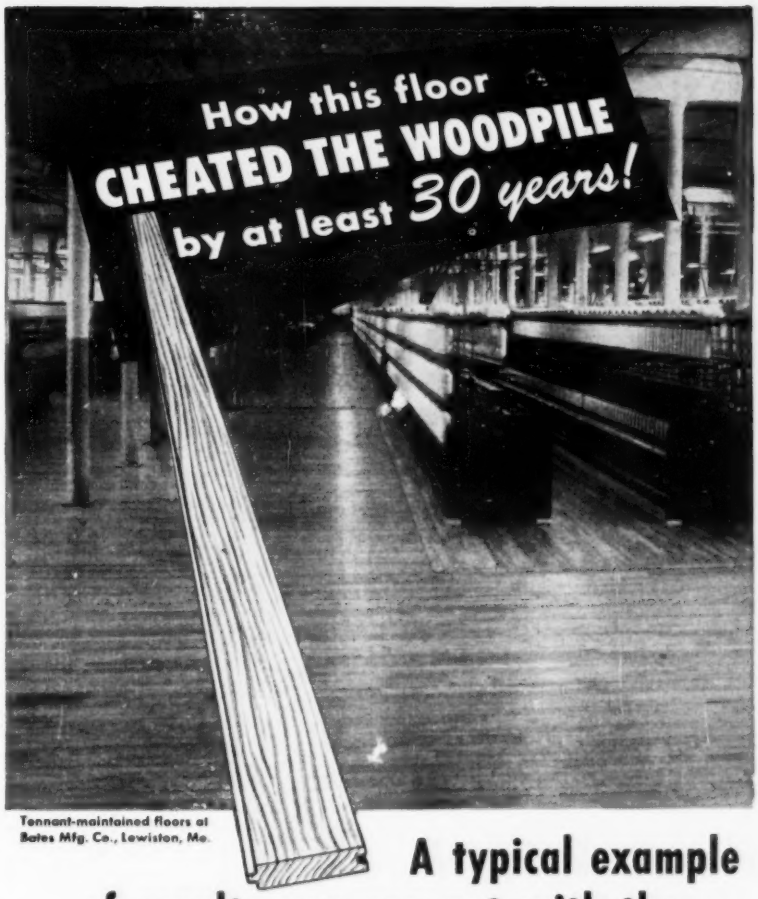
For additional data, request item B-118, using Handy Return Card on page 232.

Spray-On Yarn Dressing for "Spot Difficulties" in Weaving

"SPRAY with S-52" is a yarn dressing for use when "spot difficulties" arise in weaving. It is a water-soluble synthetic wax, dissolved in a safe organic solvent, and marketed in a spray-type container which makes it possible to apply the solution just where it is needed, in the right quantity, and quickly.

The solution is applied: at the beginning and the end of the warp; directly over the warp beam on the loom or just in front of the reed and heddles to reduce fuzzing and insure free passage of end; after stopping the loom for any mechanical difficulty; in front of loom for fuzzy ends caused by rough shuttle; over filling

Yarn dressing in spray-on type container (Specialty Products).



Tennant-maintained floors at Bates Mfg. Co., Lewiston, Me.

A typical example of results you can get with the...

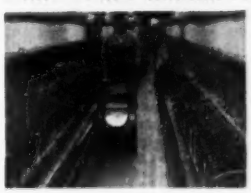
TENNANT FLOOR MAINTENANCE SYSTEM

Transformed like magic, this 30-year-old floor —once dark, rough and spongy from scrubbing—is now good for another 30 years. Saved from costly, premature replacement, it's been made bright, smooth and durable again—by low-cost reconditioning with the TENNANT System.

RECONDITIONS your floors. Gets rid of dark, rough, oil-soaked fibers . . . provides a smooth, bright, new-wood surface.

HARDENS floor surface by special sealing process . . . fills, binds and toughens fibers to resist dirt penetration.

DRY CLEANS; ends scrubbing! Avoids muss, saves manhours, reduces accidents . . . assures cleaner floors at LESS COST!



YOUR FLOORS STAY CLEAN longer when dry-cleaned instead of scrubbed! With this Tennant Floor Machine, dirt, grime and traffic stains are whisked off and picked up in 1 operation. Leaves smooth, hard, dirt-resistant surface . . . only daily care needed is fast, easy sweeping with dry cotton mop. No muss, easy to use, keeps floors looking like new.

- **Reduces floor cleaning costs.**
- **Makes floors easy to clean.**
- **Prolongs floor life, aids safety.**

G. H. TENNANT CO.
2524 North 2nd Street
Minneapolis 11, Minnesota

Write today! Ask for "New Floors From Old" article, also "Textile Floor Maintenance" bulletin, etc.

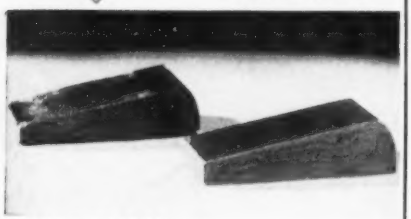
TENNANT FLOOR MAINTENANCE System

Established 1870

OFFICES IN PRINCIPAL CITIES

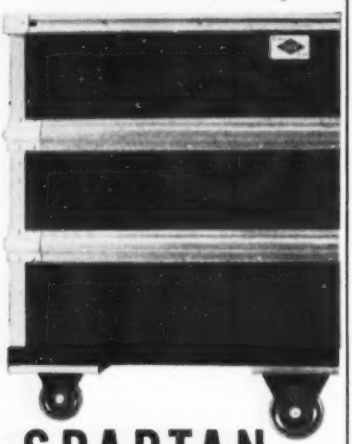
...From SPARTANBURG, S.C.

CDF TEXTILE NEWS



CELORON PARALLEL PLUGS

A canvas-based laminated plastic, made only by C-D-F, is used for molded parallel plugs that have high impact strength and are impervious to oil and water. The upper left plug was used for two years by a leading mill! Celoron does not require lubrication, never turns soft or spongy, lasts indefinitely. It does not fracture, chip, or delaminate. Write for sample.



THE SPARTAN

A side view of the industry's newest, best-built truck . . . the SPARTAN. Smooth Diamond Vulcanized Fibre sides. Curved center bands, rounded corners, well-riveted. Special no-snag top rim. Steel casters with heavy thread guard. *Write now for new folder showing complete C-D-F receptacles line!*

ALL PRODUCTS OF

Continental-Diamond Fibre Company

NEWARK 11, DELAWARE

. . . with Textile Headquarters at 834 Haynes Street, Spartanburg, S.C. Call Spartanburg 3-6397 for CELORON gear blanks . . . materials handling equipment . . . loom parts . . . service from your C-D-F sales engineer.

NEW Equipment AND MATERIALS

cops in trays to make less "lively."

Specialty Products Co., Jersey City, N. J.

For additional data, request item B-121, using Handy Return Card on page 232.

Veeder-Root 2-3 counter.

2-3 Convertible Counter Withstands Humidity, Shock, and Wear

Exceptional ability of a new plastic drive connection to withstand humidity, shock, and wear is a principal advantage of a new design of 2-3 convertible counter for looms, roving frames, and knitting machines.

Other features: black plastic reset knobs are easy to turn and have built-in shear-pin protection; larger "picture" windows make figures easier to read; horizontal shafts are equipped with brass bearings; vertical drive shafts with Oilite bronze bushings.

Veeder-Root Inc., Hartford, Conn.

For additional data, request item B-502, using Handy Return Card on page 232.

Floor Resurfacer Provides Safety and Durability

Dangerous, worn floors may be given a smooth jointless surface with a ½" topping of Flexrock. The material is non-dusting, fire-resisting,

Test moisture content *in* 3 *seconds* with Moisture Register!

Model PD-1

Model K-2

You get *accurate*, almost instant, moisture content readings in **wool, cotton, rayon, nylon—practically any type of textile**—when you use Moisture Register Model PD-1 or Model K-2.

Either model gives you "on-the-spot" readings with guaranteed accuracy. They're simple to operate, require no technical knowledge or skill, weigh only 6 pounds, easily portable.

Model PD-1 tests textiles in loose or compressed forms with 3" penetration. Model K-2 tests cones, beams, rolls and similar forms.

ONE YEAR GUARANTEE!

Use one of these instruments **FREE** for 10 days. No obligation! Prove for yourself that Moisture Register will help you maintain higher standards, iron out production headaches, add to your reputation as a manufacturer of quality products. Fill out coupon, mail today!

ELECTRONIC MOISTURE REGISTER

MOISTURE REGISTER CO.
1510 W. Chestnut St.,
Dept. T1, Alhambra, Calif.

☐ Please send me, *without obligation!* for 10-day free trial,
'Model . . . . . for use on . . . . . .
Enclosed find purchase order to cover trial period.

NAME
TITLE
COMPANY
STREET
CITY
STATE

☐ Please send me information on Moisture Register for use on . . . . . .

withstands vibration, and will not splinter, warp, or crack. Also, withstands heavy abrasive traffic and any weight the substructure will bear. There are five colors plus natural to choose from.

Flexrock Company, 3653 Cuthbert St., Philadelphia 4, Pa.

For additional data, request item B-503, using Handy Return Card on page 232.

150s to 180s Yarn from 1.4 Denier Perlon Staple

A 1.4-denier Perlon staple fiber which should enable the spinning of yarn as fine as 150s and 180s (cotton count) has been developed by Vereinigte Glanzstoff-Fabriken A. G. of Wuppertal, Germany, according to an announceent by the firm's sole agent in this country, Amicale Wool Service Co., Inc. Common sizes and deniers of "NEFA" Perlon staple from 2.75 denier up in bright or dull finish are also produced by this manufacturer and are available in the United States through the agent.

"FLOX" rayon staple fiber, another product of the German manufacturer, is available in all sizes and deniers, in either bright or dull finish.

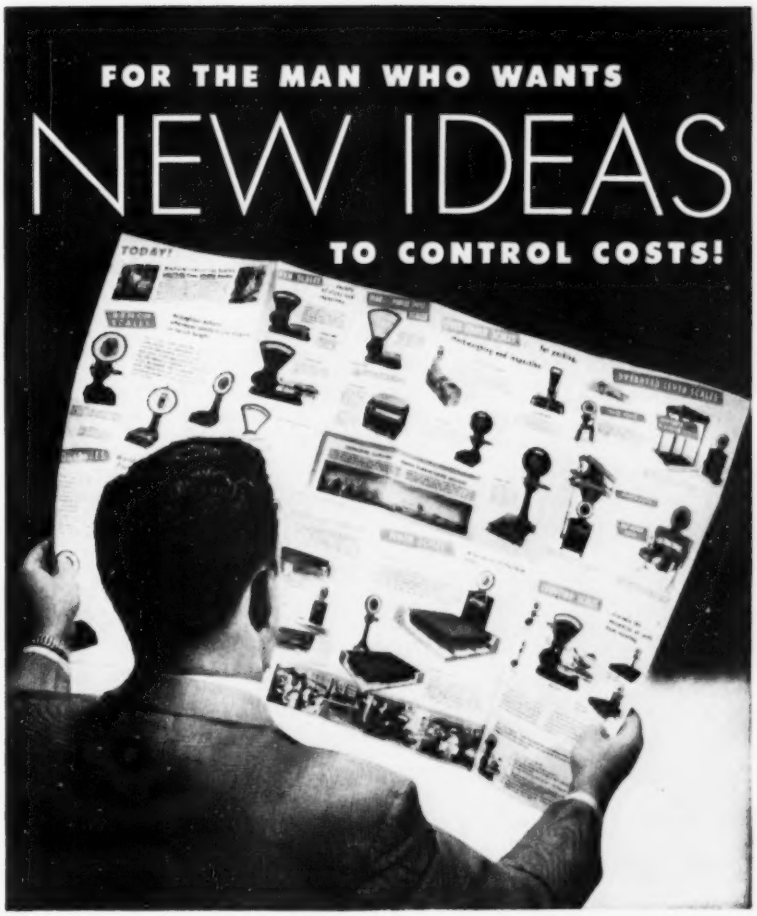
Amicale Wool Service Co., Inc., 4 East 46th St., New York 17, N. Y.

For additional data, request item B-106, using Handy Return Card on page 232.

New Dyes for Acetate

Eastman Fast Yellow 2R-GLF is a bright golden yellow acetate dye having exceptional fastness to atmospheric gas fading, light, washing, sublimation, and perspiration. The slower exhaust rate of this dye makes it a valuable component with other dyes of the GLF series when an on-tone build-up is desirable. The dye may be used in dyeing draperies and other fabrics where extreme fastness to light is required, and it is reported to have very good fastness to light on pastel shades. It is not dischargeable.

Eastman Diazo Navy Blue RB is a dispersed acetate dye which, when diazotized and developed with BON, gives shades of navy blue which have excellent fastness to light, washing, perspiration, and sublimation. Even when using increased amounts of dye shades of black on blends of acetate and viscose, the dye is said to reserve the viscose and



...LOOK TO TOLEDO!

Whatever your problems in scales for receiving, production, shipping, stock rooms, and many other textile weighing operations . . . there's a modern Toledo to do the job with high *accuracy, speed* and *dependability.* Have you checked your scale needs? Get latest information in this widely used reference on Toledos that help you guard costs . . . speed production. Look into the advantages of Printweigh in stopping losses that originate through human errors. Send coupon for new edition—"Toledo, Headquarters for Scales."

SERVICE Factory-Trained 200 Cities

TOLEDO®
HEADQUARTERS FOR SCALES

SEND FOR THIS!

Toledo Scale Co., Toledo 1, Ohio

Please send without obligation your new edition on modern ways to weigh with Toledos.

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For better Warp Sizing ...Finishing...Printing

OK BRAND

TEXTILE STARCHES

• Always uniform! • Tailor-made for your requirements! • Always dependable!

FREE TECHNICAL SERVICE!

Many expert textile men are members of the permanent technical staff of Hubinger's famous laboratories. You are invited to consult these experts on any production problem involving the use of starch—without cost or obligation on your part.

...the Stamp of Quality!

THE HUBINGER CO. (EST. 1881), KEOKUK, IOWA

Branch offices: Boston • New York • Charlotte • Chicago • Los Angeles

eliminate clearing that is normally required.

Eastman Printing Blue 2B is an anthraquinone type dye especially recommended for application printing of acetate fabrics because of the excellent dispersibility, excellent resistance to sublimation, and very good fastness to wet processing. It produces a clear, bright blue which fixes easily on steaming. The light fastness is very good in medium and heavy shades of blue on acetate.

Tennessee Eastman Co., Kingsport, Tenn.

For additional data, request item B-117, using Handy Return Card on page 232.

2500-Lb Capacity Electric Fork Truck Speeds Materials Handling

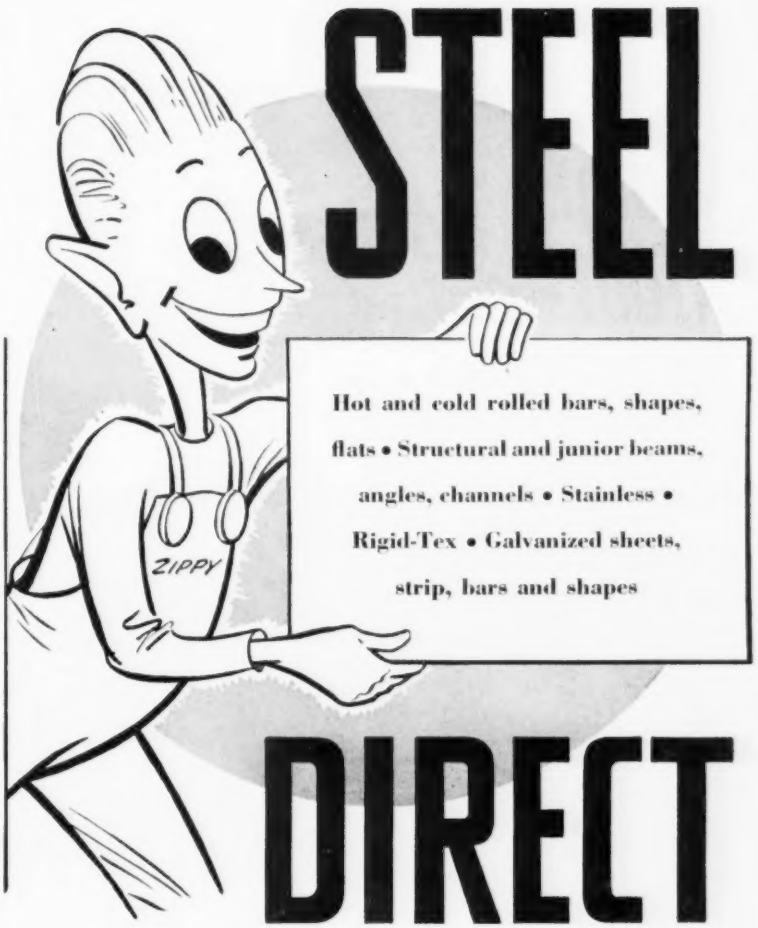
Development of a new 2500-lb capacity electric fork truck that travels at speeds up to 7 mph and makes a U-turn in an 8½-ft aisle has been announced. Called the FS-25, it has the following new design features: worm-gear driven power axle; "Gyroscopic" trailing axle construction allowing the truck to step over uneven flooring and obstructions without upsetting the stability of the truck; "Dynamic" braking to prevent motor burnouts caused by sudden reversals of the truck's direction.

The Baker-Raulang Co., Baker Industrial Truck Div., 1230 West 80th St., Cleveland 2, Ohio (B-504).

Automatic Process Control by Light Measurement

A versatile, reliable, quantitative photo-electric measuring and control instrument called Colorede is adaptable to automatic shading and may in the near future be used in continuous dyeing processes for recording of color errors, automatic control of certain dyeing and finishing processes, etc.

Built around a photomultiplier, a flicker photometer optical system, and an electronic system proven in the "Color-Eye," the instrument which is described as a precision light comparator, will operate continuously for thousands of hours


STEEL
ZIPPY
Hot and cold rolled bars, shapes, flats • Structural and junior beams, angles, channels • Stainless • Rigid-Tex • Galvanized sheets, strip, bars and shapes
DIRECT

From Warehouse to you!

Now—from the South's newest and most modern steel warehouse—a larger-than-ever variety of ferrous and non-ferrous products is within reach of your telephone or overnight mail—ready for rapid delivery by rail or truck to any point in the Southeast.

METALLURGICAL SERVICE

Without cost or obligation, the services of our complete testing laboratory and metallurgists are available to help you choose correct metals, find suitable substitutes when necessary and advise on the use of stainless, alloy, high and low carbon steels.

To receive our stock lists as issued, drop us a line or give us a ring.

"Service in Step with Southern Progress"

WAREHOUSE DIVISION

Atlantic Steel Company

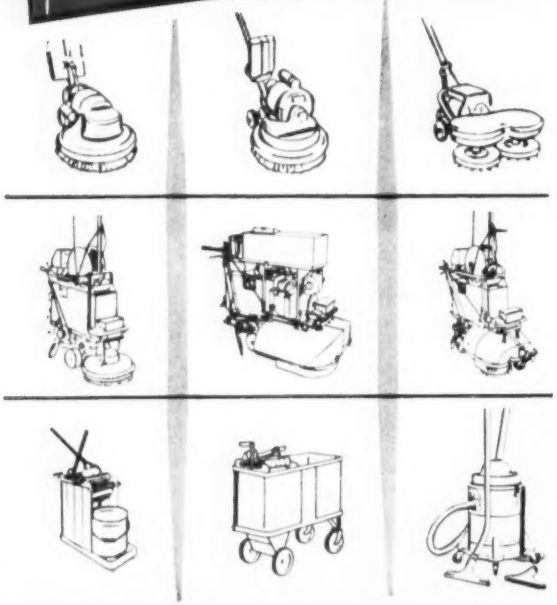
575 FOURTEENTH ST., N.W. • EMERSON 3451 • ATLANTA GEORGIA

Keep your floor-maintenance men happy . . .

with *Job-Fitted* EQUIPMENT!

Choose from the COMPLETE *Finnell Line*

More than a score of models and sizes permits selection of the equipment that's exactly right for your job!



However much a maintenance man may want to do a good job, and at the same time show savings in labor costs, he's *stymied* if the machine is too small, or too large, or is otherwise unsuited to the job. Different floors and areas call for different care and equipment. That's why *Finnell makes more than a score of floor-maintenance machines.* From this complete line, it is possible to choose equipment that is correct in size as well as model . . . that provides the maximum brush coverage consistent with the area and arrangement of the floors.

Finnell makes *Conventional Polishing-Scrubbing Machines* in both concentrated and divided-weight types, each in a full range of sizes . . . a *Dry-Scrubber*, with self-sharpening brushes, for cleaning grease-caked floors . . . *Combination Scrubber-Vac Machines* for small, vast, and intermediate operations, including gasoline as well as electric models . . . *Mop Trucks* . . . *Vacuum Cleaners* for wet and dry pick-up, including a model with By-Pass Motor. In addition, *Finnell* makes a full line of fast-acting *Cleansers* for machine-scrubbing . . . *Sealers* and *Waxes* of every requisite type . . . *Steel-Wool Pads*, and other accessories — *everything for floor care!*

In keeping with the *Finnell* policy of rendering an individualized service, *Finnell maintains a nation-wide staff of floor specialists and engineers. There's a Finnell man near you* to help solve your particular floor-maintenance problems . . . to train your operators in the proper use of *Finnell Job-Fitted Equipment and Supplies* . . . and to make periodic check-ups. For consultation, demonstration, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1302 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

50th Anniversary — Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES

without zero or sensitivity drift. Special prefocused light sources operating directly on a-c current permit 2000 hours or more of continuous service without even a lamp change.

Engineers will be provided by the manufacturer to confer with mills having problems involving control by measurement of light and application of Colorede to their processing machinery.

Instrument Development Laboratories, Inc., 163 Highland Ave., Needham Heights 94, Mass.

For additional data, request item B-505, using Handy Return Card on page 232.

Automatic Warp Drive for All Mayer Tricot Machines

Improved uniformity and quality of fabric are advantages to be derived by installing an automatic warp drive mechanism on Mayer tricot knitting machines.

The unit consists of a completely mechanical positive yarn feeding device using principles disclosed in a patent owned by Julius Kayser & Co.

It is anticipated that the same device will be available in limited numbers for tricot machines of other makes within six months.

Alfred Hoffman & Co., 629-635 Fifty-ninth St., West New York, N. J.

For additional data, request item B-301, using Handy Return Card on page 232.

Air Type Slasher Dryer Produces Up to 1000 lb/hr

The new Proctor air slasher makes possible productions up to 1,000 pounds per hour and can be applied with equally good results in drying cotton or wool.

Features of the slasher include:

(1) Wet splitting of warp at entering end;

(2) Proctor patented parallel air flow nozzles which insure mild air action and, at the same time, thorough drying;

(3) Direct motor-driven fans,

INVESTIGATE
Tower
TEXTILE EQUIPMENT

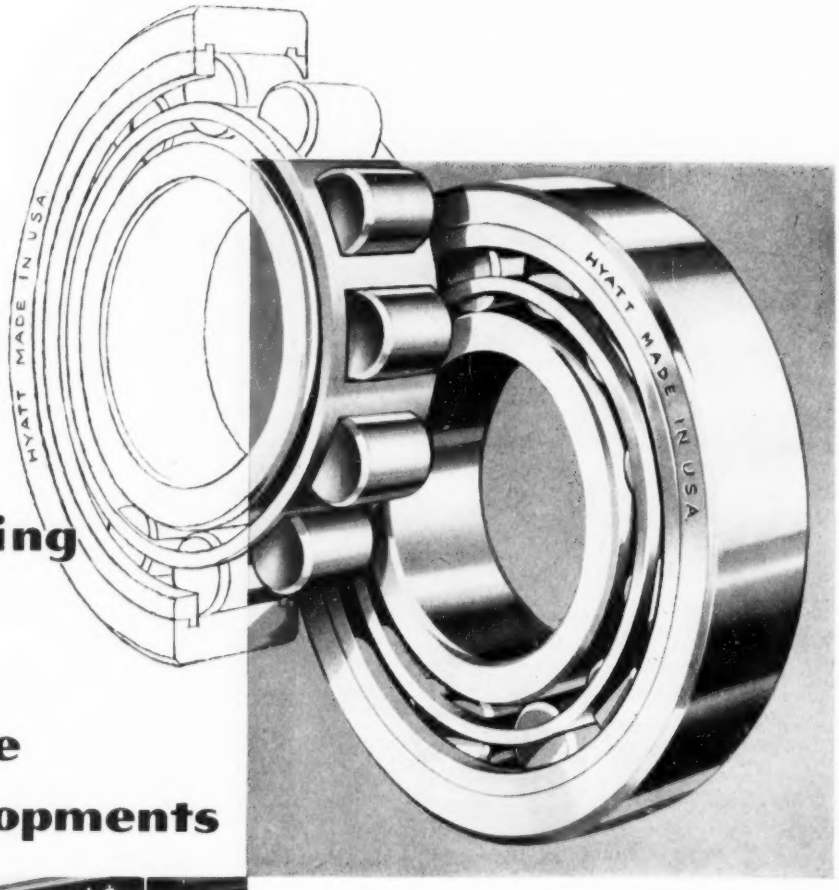
STAINLESS STEEL AGER

The cost conscious textile man, concerned with the purchase and operation of production equipment, will find it to his advantage to contact Tower engineers. Tower engineers will consult with you on the design and installation of the finest in textile equipment — to meet your most exacting operational requirements.

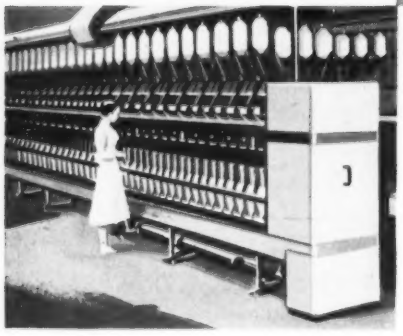
NEW FLASH AGERS
for vat prints are now being offered by Tower. We will be pleased to explain their many advantages.

IRA L. GRIFFIN & SON
Charlotte 1, North Carolina
Southern Representative

Tower Iron Works
Established 1835
50 BORDEN STREET, PROVIDENCE 3, RHODE ISLAND



Keeping pace with textile developments



Hyatt precision bearings

Throughout the textile industry, modern methods and Hyatt-equipped machinery are making possible the production of higher quality yarn and cloth at lower cost. Builders of looms and preparatory and finishing equipment know that by using Hyatt bearings they can offer the advantages of faster machine operations, reduced power costs and minimized lubrication problems. If Hyatts are not standard equipment on the machines you purchase, they can be had upon specification—or used for changeovers. For data about Hyatt bearing performance, write to Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.

HYATT ROLLER BEARINGS

eliminating belt or coupling drives;

(4) Use of lint screens and placing of heaters for ready accessibility—simplifies cleaning;

(5) Exhaust fan for slasher and size box;

(6) All-steel construction for strength and smooth interior to further aid in easy cleaning;

(7) Replaces two-can slasher in size.

Proctor & Schwartz, Inc., 610 Tabor Rd., Philadelphia 20, Pa.

For additional data, request item B-104, using Handy Return Card on page 232.

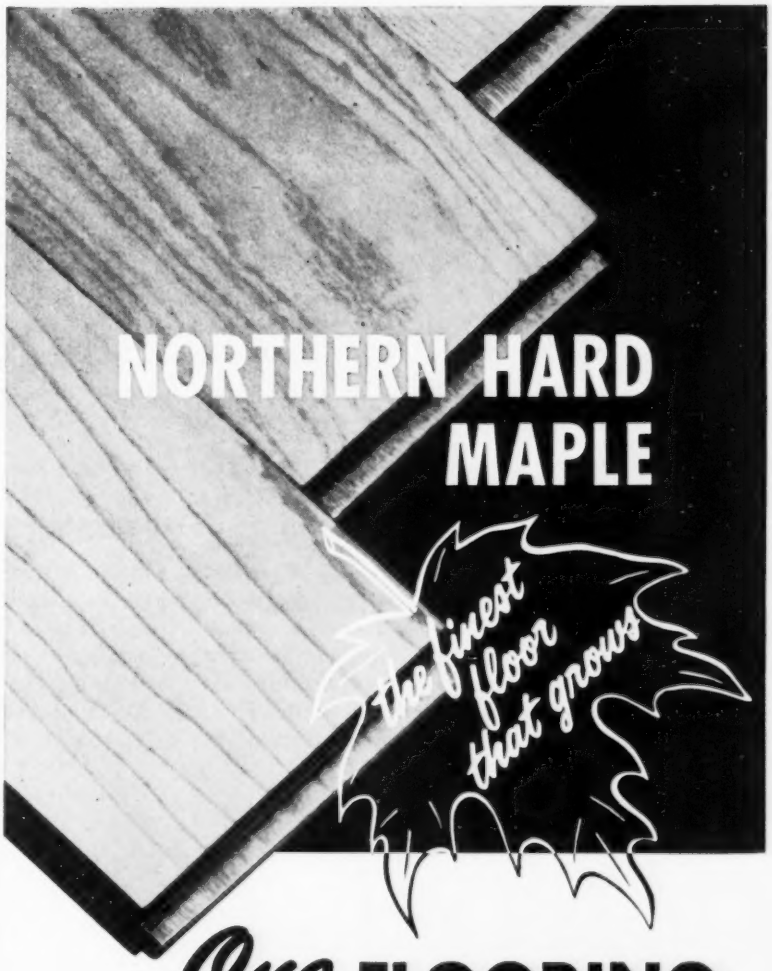
Device Grounds Static Produced by CO_2 Extinguishers

A built-in device which grounds static electricity and eliminates shock to operators of CO_2 fire extinguishers having hose connections is called the Alfco Anti-statik Horn. A pair of copper conducting strips, extending a considerable distance along the inside of the horn, are molded in place and electrically bonded through the nozzle and the metal braid of the hose to the carbon dioxide cylinders. They serve to carry away the static charge as rapidly as it is produced by the carbon dioxide snow issuing from the nozzle. According to the manufacturer, small units of 2½, 3⅝ and 5 lb capacity do not require anti-static strips because horns are short and rate of flow is insufficient to cause excessive friction.

American-LaFrance-Foamite Corp., Elmira, N. Y. (B-509).

New Books

Now available is a biography on Eli Whitney which is based on a hitherto unpublished collection of family papers. Entitled **The World of Eli Whitney,** the 517-page book by Jeannette Mirsky and Allan Nevins points out that Whitney's importance extends far beyond the invention of the cotton gin—he was a man of ideas, an important contributor to the Industrial Revolution in America, and the father of mass production. Published by The Macmillan Co., 60



One FLOORING IS proved RIGHT FOR TEXTILE MILLS and this is it!

And this is *why:* Northern Hard Maple is *resilient.* It is bright and smooth and tight. It is warm and dry and doesn't splinter. Simple brushing cleans it. It's easily re-surfaced. It's hard to dent or scuff. It creates no dust, catches no lint. *Everybody* likes to walk on it, stand on it, *work* on it. *See Sweet's* Arch. 12k/MA for data, or write:

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 591, Pure Oil Building, 35 E. Wacker Drive
CHICAGO 1, ILLINOIS

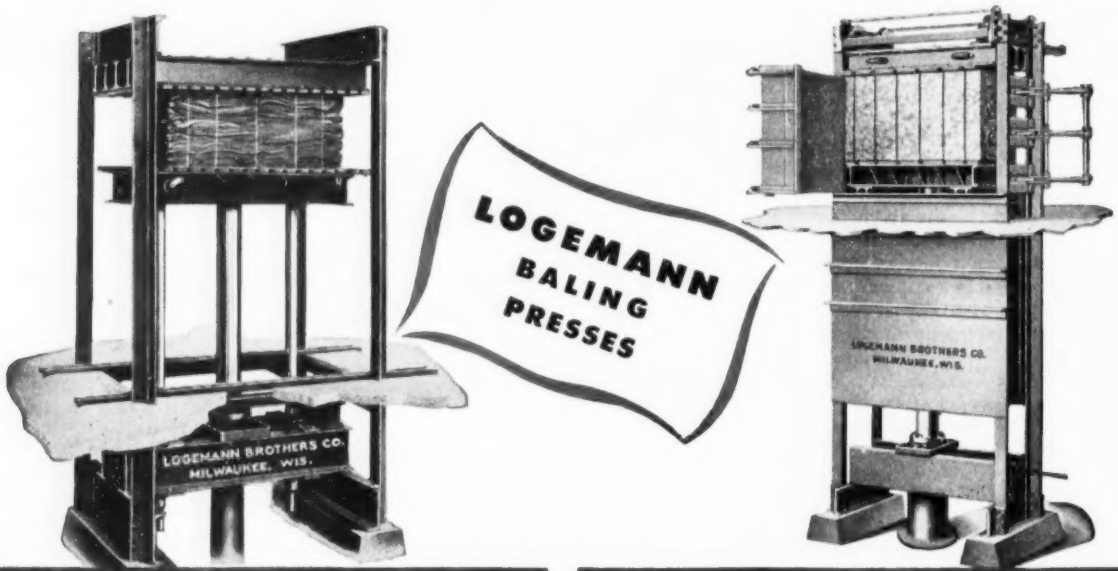
FLOOR WITH NORTHERN HARD MAPLE
BEECH AND BIRCH

MAKE YOUR BALING A *Profitable* OPERATION *with a* LOGEMANN BALER

Tell Us Your Baling Problems

THAT'S the best way to get the right answers to low-cost time-saving baling. During our sixty years of building balers for the textile industry we've solved many a baling problem for factory owners. Our engineers know how to make baling operations pay their own way in time and labor-savings, in speedier, more reliable handling of bales, in lower maintenance costs. Many Logemann balers have been in profitable operation since the turn of the century—evidence of the ruggedness, durability, and long service life of Logemann baling presses.

In the interests of better baling operations in your factory, find out what Logemann balers can do for you. Tell us what your specific problem is. We'll gladly show you how it can be answered in terms of better bales at lower costs and make a specific recommendation based on your requirements. Write for information today.



Open balers for finished goods may be hydraulic or power-driven. Give platen dimensions required, maximum height of pile to be compressed, number of bales per hour, when requesting information on open balers.

Box balers for waste may be obtained in either the hydraulic or power-driven type. Mention the kind of waste to be baled, how much in how many hours, the preferred size or weight of bale when inquiring about box balers.

LOGEMANN BROTHERS CO.

3100 West Burleigh Street • • • Milwaukee 10, Wisconsin

Fifth Ave., New York 11, N. Y. (price, $5.75).

Fundamental Principles of Polymerization—Rubber, Plastics, and Fibers, by G. F. D'Alelio, vice-president and manager of research, Koppers Co., Inc., summarizes what in the author's opinion is the minimum fundamental knowledge that a scientist in the field of polymers should have. Also, an attempt is made to reconcile the discrepancies of terminology in earlier literature, with the hope that it will establish a common meaning for the language in current use in this field. Published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. (price, $10.00).

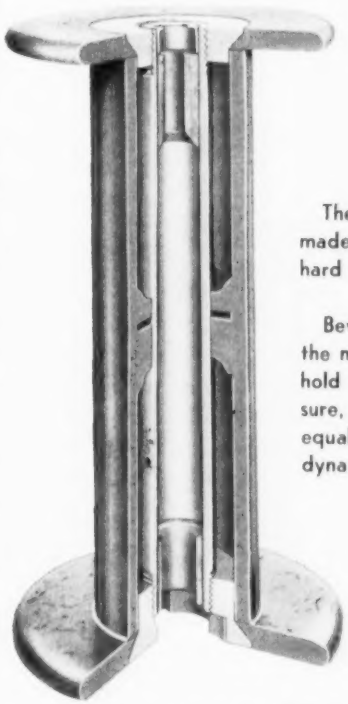
A chapter on the use of electronic apparatus in the textile industry has been incorporated in the **Applied Electronics Annual for 1952** which was recently published by the British-Continental Trade Press Ltd., 222 Strand, London, WC2, England. Included are special considerations in devising equipment for the textile industries and an account of electronic instrumentation in textile research and production. Also included are chapters on radio frequency heating, electronics in engineering production, and materials for electronic components. Price, $8.00 from J. D. Griffiths, 3606-A Parkwood Drive, Greensboro, N. C.

The nature, properties, and uses of 1500 textile auxiliaries are compiled in a handy reference book entitled **Modern Textile Auxiliaries.** Edited by A. J. Hall, a consulting chemist to the textile and related industries, the 224-page book also contains an alphabetical list of products, a classified list of applications, and an alphabetical list of manufacturers. Published by Thomas Skinner & Co. Publishers, Ltd., 111 Broadway, New York 6, N. Y. (price $7.00).

The 25th edition of the **FBI Register of British Manufacturers-1952/53** has been published for the Federation of British Industries by Kelly's Directories Limited and Iliffe and Sons Limited, Dorset House, Stamford St., London, S. E. 1, England. This export reference book comprises seven sections, including "products and services" which is a classified buyers' guide listing over 6,000 FBI members firms under more than 5,000 alphabetical trade headings.

HAVE YOU SEEN
the NEW
LESTERSHIRE
"NB" BOBBIN?

- It has balance without balancing costs—
- Operates at higher spindle speeds—
- Lessens spindle and bolster wear—
- Reduces power consumption—
- Assures strength to withstand crushing pressures—
- Eliminates vibration—
- Lowers bobbin investment.



FEATURES YOU WILL APPROVE

The new Lestershire "NB" Bobbin is made from Phenolite (laminated bakelite), hard vulcanized fibre, and aluminum.

Beveled aluminum bushings, threaded to the metal center tube and locked in place, hold the heads rigidly against yarn pressure, eliminating screws, thus assuring an equal distribution and helping to assure dynamic balance.

The barrel of Phenolite or molded bakelite gives great strength and concentricity for the unit.

All parts are made to close tolerances and are interchangeable.

Send for full facts and samples.

LESTERSHIRE SPOOL & MFG. CO.

140 Baldwin Street — Johnson City, N. Y.

Division of National Vulcanized Fibre Company

Branch Offices and Technical Services:

Clifford E. Lathrop—7 Whitney Avenue, New Haven 10, Conn.
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Odell Mill Supply Co.—Greensboro, N. C.
Greenville Textile Supply Co.—Greenville, S. C.
National Insulations Co.—Chicago 12
National Vulcanized Fibre Co.—Detroit
National Vulcanized Fibre Co.—Cleveland

MULTIPLY YOUR STORAGE SPACE BY USING CLARK EQUIPMENT

This is the modern method by which alert business men throughout the world are satisfying the need for increased storage space without investing a penny in building costs: the Clark method of materials handling.

Clark fork-lift trucks enable you to utilize your "air rights" — by putting idle space near the ceilings to profitable use. They promote orderly efficient warehouse planning — every commodity in its assigned place. Materials move into and out of storage a great deal faster—making it easy to handle a far larger volume of goods. Accidents and damage losses are sharply reduced.

Using unit loads composed of multiple items save much time in taking inventory. Actually, storage capacity is usually doubled, in many instances tripled, by carefully planned use of these powerful, fast, safe, efficient machines.

For full information on this more efficient modern method, consult the Clark dealer in your area. You'll find him a competent counselor on all problems of handling materials at lowest cost. Call him today—he's listed under "Trucks—Industrial" in the yellow pages of your phone book.

1903 1953 FIRST FIFTY YEARS CLARK EQUIPMENT

CLARK ELECTRIC AND GAS POWERED FORK TRUCKS
AND POWERED HAND TRUCKS • INDUSTRIAL TOWING TRACTORS

Industrial Truck Div. • CLARK EQUIPMENT CO. • Battle Creek 61, Mich.
Please send: ☐ Movie Digest ☐ Safety Saves
☐ New Condensed Catalog ☐ Material Handling News
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Textile Industries

Volume 117 Number 2

FEBRUARY, 1953

John C. Fonville
Editor

ASSOCIATES

J. Frank Guest
Hunter Hughes
P. O. Box 968
Rock Hill, S. C.
Milton C. May
Paul M. Platzman
22 Ridge Drive East
Flower Hill,
Roslyn, N. Y.
H. B. Anderson

J. A. Moody
Production Manager

John C. Cook
Business Manager

Walter M. Mitchell, Jr.
Assistant

Business Representatives

Boston—ARTHUR C. SHAW, 11 Monroe Rd., Wellesley Hills, Mass. (Phone: Wellesley 5-3648).
New York—WILLIAM K. HOFFMAN, 58 Euclid Ave., Maplewood, N. J. (Phone: South Orange 2-2484).
Philadelphia—RODMAN HANSON, 708 Hendren St., Philadelphia 28, Pa. (Ivy Ridge 3-4176).
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Personal NOTES

ABOUT MEN YOU KNOW

J. Robert Bonnar, General Dyestuff Corp., has been elected president of the American Association of Textile Chemists and Colorists. Vice-presidents are: **Arthur J. Brainerd,** Ciba Co.; **Arthur W. Etchells,** Hellwig Dyeing Corp.; **Samuel L. Hayes,** Ciba Co.; and **George O. Linberg,** Synthron, Inc.

J. Rollins Jolly has been named manager of the American Thread Co.'s six southern division spinning plants. He was previously director of industrial relations for this division.

John Firth, formerly with Faulkner & Colony Mills, is now overseer of carding at the Norwich, Conn., mill of American Woolen Co.

Dr. French H. Craddock, Sr., has been elected vice-president of Avondale Mills.

Maj. Gen. Irving J. Phillipson, U.S.A. retired, has resigned as director of industrial relations for Botany Mills, Inc.

Lawrence D. Bragg, Jr., has been named vice-president in charge of production for Bolta Products, Inc., Lawrence, Mass.

J. Irving Roy, president of Canadian Cottons Limited, Montreal, Que., was re-elected president of the Cotton Institute of Canada.

Cannon Mills Co. has announced the election of **G. A. Batte, Jr.,** to fill the vacancy on the board created by the death of Martin L. Cannon.

Correction! The name of the new president of Standard-Coosa-Thatcher Co. is **S. Herschel Harris,** not S. Herschel as stated in our January issue.

Robert H. Lankford, Jr., formerly superintendent, has been made general superintendent of Chatham Manufacturing Co. **Henry R. Meinung** has been promoted to superintendent of finishing, and **Harry H. Barker, Jr.,** to superintendent of all operations through weaving.

Sanford L. Cluett, vice-president of Cluett, Peabody & Co., received the Holley medal at the annual banquet

CONSOLIDATED TEXTILE reports:

FIRES DUE TO TRAMP IRON ELIMINATED IN ROVING WASTE MACHINE CONVERTER

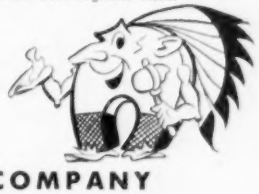
***ERIEZ* Permanent Magnetic Separators Remove ALL Tramp Iron From Waste Cotton**

Two Eriez permanent (non-electric) plate-type magnetic separators, installed on the feeding line of a roving waste machine converter, are removing practically *all* spinning travelers and other tramp iron from re-workable waste cotton at the Consolidated Textile Co. Inc., Lynchburg, Va. During the three years prior to the installation of the Eriez equipment, *six* fires started in the waste machine from sparks generated by tramp iron striking against the machine's rotating beaters. These fires resulted in $1200 damage to the machine and materials. Since the Eriez installation there have been no fires caused by tramp iron, and the life of the beater lags has been materially increased!

Eriez permanent (non-electric) plate-type magnetic separators are the most economical and efficient means of removing stray iron and steel from *all* wet or dry fibers. They prevent the entry of tramp iron into openers, beaters, garnetts, cards and other expensive processing machinery . . . eliminate the possibility of steel striking sparks and setting destructive fires!

Here are 5 features exclusive with Eriez magnetic separators:

1. Riveted construction adds rigidity . . . increases structural strength.
2. Continuous hinge means easy, permanent installation.
3. Cover adds to longitudinal stiffness . . . prevents tampering and accumulation of iron on backs of castings with consequent shorting of magnetic circuit.
4. Insulation confines magnetic strength to working surface . . . no bleeding to surrounding areas.
5. Flush air gap prevents gathering of fine iron which can short out magnetic field.



Write today for FREE 6-page Bulletin 563 which describes all Eriez magnetic separator installations for the Textile Industry.

ERIEZ MANUFACTURING COMPANY

12 Magnet Drive • Erie, Pennsylvania

Nine Out of Ten Textile Mills Specify ERIEZ

Go higher after sales!

IN APRIL'S

KNITTING ARTS EXHIBITION ISSUE . . .

The April issue of TEXTILE INDUSTRIES will help you to go after those extra sales! An editorial preview of the 41st Knitting Arts Exhibition, it will be a wonderful help to the mill men and executives attending the Exhibition. Included will be information on what to see, what to do, and other news that will help the delegates get the most out of the show.

For those who can't get to Atlantic City, April TEXTILE INDUSTRIES will enable them to cover the new products, equipment, and machinery almost as well as if they were there in the exhibition hall wearing out shoe leather.

The unusual readership interest and lasting effect of this issue will offer you an excellent opportunity to tell of improvements in materials, machinery and methods—improvements the men in the mills will be eagerly looking for.

Plan to cover this Exhibition and the industry now with dominant advertising space in April TEXTILE INDUSTRIES. T.I.'s circulation is at an all-time high with 23,500 copies monthly—more actual mill circulation than any other textile publication. Also, rates are the lowest per thousand in the field.

Write, wire or phone your reservation now. Forms close March 1, 1953.

TEXTILE INDUSTRIES

THE MANAGEMENT MAGAZINE OF THE INDUSTRY

806 PEACHTREE STREET, N.E. **ATLANTA 5, GEORGIA**

Personal NOTES ABOUT MEN YOU KNOW

of The American Society of Mechanical Engineers. He was so honored for having pioneered in the mechanical shrinking of textile fabrics more than twenty years ago. Other inventions to his credit are a chronograph, lock gates and valves for locks, and harvesting machinery. The Holly medal is bestowed for "some great and unique act of genius of engineering nature that has accomplished a great and timely benefit."

Sydney M. Cone, Jr., was recently elected president of Cone Finishing Co., a unit of Cone Mills Corp. He is also a vice-president of the parent company. **Marshall J. Gardner** and **Percy G. Gregory** have been named vice-presidents.

Charles H. Merriman, Jr., has been made executive vice-president and treasurer of Crompton Highland Mills, Griffin, Ga.; **Herbert A. Pickford** has been promoted to vice-president and general manager; and **S. Y. Austin, Jr.,** is vice-president.

John C. Conniff has succeeded Ernest G. Wigfield, resigned, as director of employment at Dan River Mills, Inc. **John J. Newton** has been made superintendent of the No. 3 division at Schoolfield; and **Edward R. Hopkins** is now section superintendent of rayon dyeing and finishing operations at the Riverside division.

J. M. McSwain has been made night superintendent at Eastman (Ga.) Cotton Mills. **Shirley Barron** has been promoted to second shift carding and spinning second hand; **G. W. Holt,** third shift carding and spinning second hand; and **W. E. Fowler,** third shift weaving second hand.

Ralph T. Marshall recently joined Erwin Mills, Inc., as vice-president, treasurer, and a director. **Carl R. Harris,** previously vice-president and assistant treasurer, now has the newly created post of executive vice-president.

Harold Risher has been made superintendent of the Excelsior Woolen Mill's Pendleton, S. C., plant. **C. E. Anderson** succeeds Mr. Risher as superintendent of the Union mill.

Walter Lennon, formerly at Hillsboro Woolen Mills, is now overseer

of dyeing and finishing at Hartford Spinning Co., Unionville, Conn.

Raymond F. Clark, vice-president of Hess, Goldsmith & Co., has been named chairman of the Glass Weaver Group, National Federation of Textiles. **J. R. Wyllie,** with Deering, Milliken & Co., has been elected vice-chairman.

Edward F. Addiss, formerly chairman of the executive committee of Susquehanna Mills, is now vice-president of A. D. Julliard & Co., Inc.

New officers of the Knitted Outerwear Manufacturers Association, Eastern District, are: **Robert Seckler,** Shepherd Knitwear Co., president; **Morris Pauker,** Pauker Bros., treasurer. Vice-presidents are: **David Aronow,** Lee Beachwear Co.; **Morris London,** Commodore Knitting Mills; **Morris Philip,** Philip Knitting Mills; and **George Vargish,** George Vargish, Inc.

Alden O. Meland, controller, is now treasurer of Kickernick, Inc., Minneapolis, Minn. **Elbert L. Thomas** has been named production manager.

Victor F. Kahn has been promoted from an assistant vice-president to vice-president of M. Lowenstein & Sons, Inc.

Joseph Templeton, superintendent at Lydia Cotton Mills, was recently made vice-president in charge of manufacturing at Clinton Cotton Mills and Lydia Cotton Mills. He succeeds the late David S. Cook.

Graden D. Causey has been made Carlisle Mill superintendent at C. H. Masland & Sons.

Ralph Tanner, formerly director of advertising and sales promotion, has been appointed coordinator of sales and manufacturing at Mooresville Mills. This new position was created to maintain closer liaison between sales and production. **Clarence E. Wylie,** with The Springs Cotton Mills for the past 18 years, has been named purchasing agent at Mooresville. He succeeds J. Chester Johnson, resigned.

Munsingwear, Inc., has announced the appointment of the following vice-presidents: **Homer Jones,** also general merchandise manager; **T. W. Hillyard; L. D. Daws,** also secretary-treasurer; **C. W. Jensen,** in charge of eastern business and also eastern sales manager.

Four new superintendencies have have been created at the Narrow Fabric Co., Reading, Pa., as follows: **Earl D. Neidig,** maintenance and service; **Otto E. Huber,** manufacturing; **Charles E. Hoffmaster,** printing and packaging; and **Conrad H. Busch,** research and development. **Roy G. Manderbach,** vice-president, heads the purchasing and production division; assistant purchasing agent is **C. A. Ostrom;** assistant production manager, **Lloyd A. Spacht.**

R. D. Glidden, director of purchasing, has been elected to the board of directors of Personal Products Corp., an affiliate of Johnson & Johnson.

Roland V. Thomas has retired as a director and vice-president of Chicopee Mills, Inc.

Recently inducted as honorary members of the Beta chapter (New Bedford, Mass.) of Phi Psi, were **Robert Tobin,** Hathaway Manufacturing Co. and **Peter Wayner, Sr.,** Gilt Edge Silk Mills. **Robert Todman** of

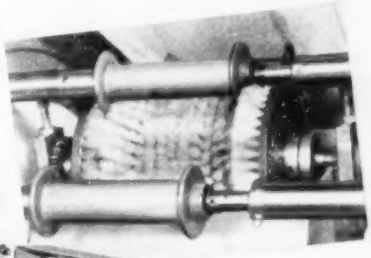
WASH FLANGED BOBBINS

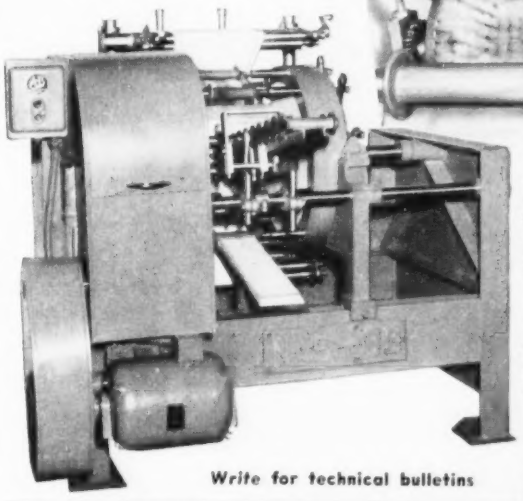
at 28 per minute with the

No. 89 NASH AUTOMATIC BOBBIN WASHER

This remarkable Nash machine is saving time and money for textile mills throughout the country. It's a ten-spindle machine that *does the entire washing and wiping operation* automatically from start to finish . . . eliminates the time and extra expense of hand washing. No dirt is left on bobbins to soil yarn on the finished fabric.

The cleaning solution has no harmful effects on yarn, either natural or synthetic . . . has a 140-degree flash point and is not toxic, assuring safe operation.





Brushes are self cleaning . . . brush sections may be added or easily removed for different bobbins.

We also manufacture Automatic Bobbin Refinishers, Quill Polishers and special-purpose machinery.

Write for technical bulletins

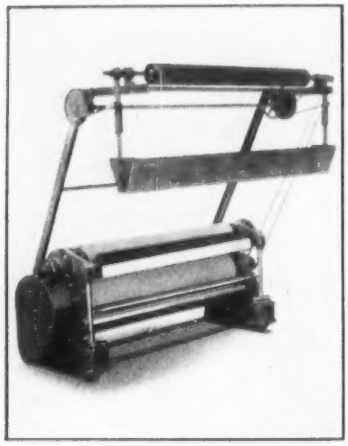
J. M. NASH COMPANY

Dept. 89, 2390 No. 30th Street, Milwaukee 10, Wisconsin

SPECIAL FINISHING MACHINES · SINCE 1890 · NASH

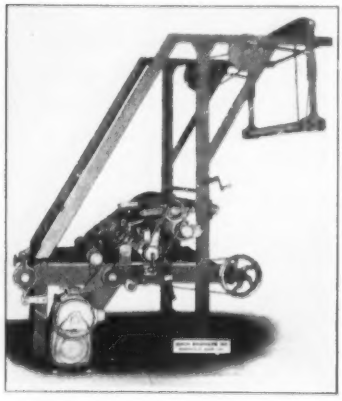
Representatives: *New England States* . . . . . J. A. Christensen, Concord, Mass.
Carolinas and Virginia . Ralph Gossett & Company, Greenville, S. C.
Georgia and Tennessee . . . . Belton C. Plowden, Griffin, Georgia

FOR COTTON CARPETS



SQUEEZE ROLL UNIT

HEAVY DUTY ROLLER BEARING UNIT for extracting or padding. Pressure applied by air cylinders from 3 to 15 tons. Equipped with variable speed drive.



NEW VACUUM EXTRACTOR

With Patent Adjustable Slot Vacuum Extracting Box and automatic Slot Seals. For extracting and raising the pile. Fitted with variable speed drive.

SPREADER AND GUIDER

for keeping goods central and free from wrinkles in open width dyeing and elsewhere.

BIRCH BROTHERS, INC.

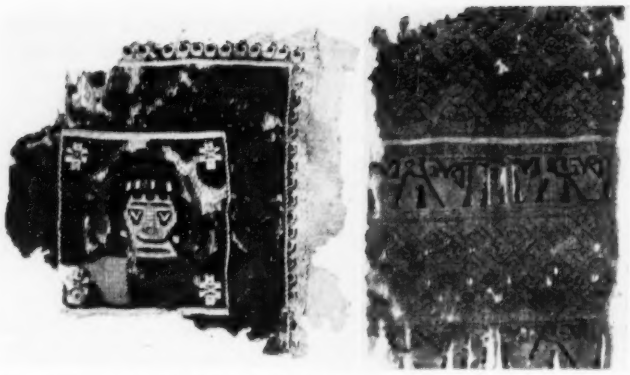
32 KENT STREET
SOMERVILLE, MASS.

Phone: PRospect 6-3512

Southern Representative:
John C. Cosby, P. O. Box 212
Greenville, S. C.

BIRCH TREE

HAROLD W. BIRCH CLIFFORD W. BIRCH
CLIFFORD W. BIRCH, JR.



6th Century Coptic (left); 12th Century Islamic Egyptian (right).

Ad Series Draws on Past to Spark Ideas for Modern Textile Design

To be of service to designers in the textile industry, according to W. Allen Traver, chairman of the board, is the object of a series of Franklin Process Company advertisements scheduled to appear in TEXTILE INDUSTRIES and other textile trade papers during 1953.

Mr. Traver said: "Textile designing is a universal art, and one of the oldest known to man. In examining the collections of yarn-dyed fabric samples in the Museum of Art at R. I. School of Design in Providence, we were struck with the idea: Why not reproduce some of the fine designs of the past, to show that the possibilities for creative patterning are literally unlimited?"

Review of fine designs created in the past, it is believed, should be a refreshing and welcome stimulus to modern designers.

Six specimens representing varied historical periods and geographical origins were chosen for full-color reproduction: a 6th Century tapestry weave loomed by an unknown Copt, a Christianized descendant of the pyramid-builders of ancient Egypt; a 12th Century Islamic fragment, with motif of conventionalized Arabic script, also woven in Egypt; a 14th Century narrow fabric from Peru, loomed during the late Chimu period, representing a school of "sophisticated primitivism"; an Italian fabric of the same century, when Europe was just waking up to the Renaissance of originality in all the arts of living; a 16th Century silk brocade from Spain, emblazoned with royal lions; and a richly imaginative 17th Century Chinese design.

A full color reprint of each of these may be obtained on request to Franklin Process Co., Department 5, Providence, R. I.

Rodman Manufacturing Co., and **Thomas Tansey,** Berkshire Fine Spinning Associates, were inducted into the Delta chapter (Fall River, Mass.).

W. M. Berry, Montreal, Que., has been appointed executive vice-president of the Primary Textiles Institute and its associated trade organizations, the Canadian Woollen and Knit Goods Manufacturers Assn., the Cotton Institute of Canada, and the Silk and Rayon Institute.

Thomas D. Russell, president of Russell Manufacturing Co., Alexander City, Ala., was recently elected president of the Alabama State Chamber of Commerce. **A. D. Elliott,** vice-president of Huntsville (Ala.) Manufacturing Co., was elected vice-president.

H. O. Ball has succeeded the late B. A. Wright as president of the Pepperton Cotton Mills, Jackson, Ga.

Francis J. Coleman is president of Putnam Dye Works, which has begun jackspool dyeing of worsted and woolen yarn in part of the Putnam Worsted Co., Putnam, Conn.

Amor P. Smith was recently elected executive vice-president of the Rus-

Personal NOTES ABOUT MEN YOU KNOW

sell Manufacturing Co., Middletown, Conn. **Ernest R. Dayton** was elected vice-president and treasurer; and **J. Richard Taylor,** comptroller.

Milford O. Howard has been made recreational director at the Victor Plant of the Victor Monaghan Co., a division of J. P. Stevens and Co., Inc.

Bruton Fitzgerald is now general overseer of preparation at August Weave, a unit of United Merchants and Manufacturers.

George W. Little has been appointed resident manager of the Hartsville, S. C., plant of the United States Finishing Co. He has been with the firm since 1935.

Willfred W. Lufkin, Jr., has succeeded **Richard C. Conant** as president of Wellington Sears Co., Inc. Mr. Conant is now chairman of the board.

E. M. Holt, formerly general manager, has been named general manager of a newly-created research and development division of Erwin Mills. Mr. Holt has been with the firm for 31 years.

Harold LaTour was recently promoted from superintendent of weaving to superintendent of preparation and weaving at Paul Whitin Manufacturing Co. **John Thibault** was made overseer of weaving; and **Alston Winter,** office manager.

Dan Furst, Jr., has been made executive assistant to the president of Barclay Knitwear Co., Inc.

Tom W. Church, Jr., executive vice-president of Highland Park Manufacturing Co., was recently elected president of the Charlotte (N. C.) Textile Club. **Alex R. Davis,** president of Longleaf Mills, Inc., Matthews, N. C., was named vice-president, and **Buck Gunter** of Fairchild Publications became secretary-treasurer.

W. H. Suttenfield, vice-president of American & Efird Mills, Inc., was recently elected president of the Durene Association of America. **Arthur K. Johnson** of Dixie Mercerizing Co. was elected vice-president; **Joseph P. Hold,** president of Aberfoyle Manufacturing Co., formerly president and treasurer of the association, was re-elected treasurer.

Lucius C. Pratt, previously vice-president, was recently elected president of Samson Cordage Works, Boston, Mass.

New officers of the Northern New England Section, American Association of Textile Chemists and Colorists, are: **Ernest R. Kaswell,** Fabric Research Laboratories, Inc., chairman; **John M. Gould,** Barre Wool Combing Co., Ltd., vice-chairman; **William W. Pennock,** E. I. duPont de Nemours & Co., Inc., treasurer; and **Azel W. Mack,** Dexter Chemical Corp., secretary.

Previously with Verney Corp., **William E. Ramm** is now superintendent of Sawyer Regan Co., Dalton, Mass.

J. P. Stevens & Co., Inc., has announced that **George P. McClenaghan,** vice-president and **R. Carter Henry** have been appointed assistant executive officer and general manager, respectively, of the Apalache plant at Greer of the Victor Monaghan Co. division.

W. R. Johnson, formerly with Somerville Manufacturing Co., is now at the Stottsville, N. Y., plant of A. D. Julliard & Co.

Henry DeWald, formerly with Cheney Bros., has joined Stonecutter Mills as manager of the technical division and quality control.

John J. Lyons, formerly with A. D. Julliard & Co., Inc., is now assistant overseer of finishing at S. Stroock & Co., Newburgh, N. Y.

Kenneth B. Cook was recently named president of Susquehanna Mills, Inc., succeeding Godfrey H. Conze, resigned. **J. Harry Johnson,** formerly with Airedale Worsted Sales Co., was named first vice-president and general merchandise manager; **William J. McDonald** was re-elected secretary-treasurer. **Robert Ehrenberg** was appointed head of the men's and women's wear divisions, and **Peter Conze** was placed in charge of the new fiber and fabric developments. Other appointments were: **W. A. Kerstetter,** general manager; and **James O. Ellis,** assistant manager of the Sunbury plant.

Robert M. Coulter has joined Textileather Corp. as product design manager.

John C. Roberts of Gastonia, N. C., was recently elected president of Textiles-Incorporated. He succeeds **A.**

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Personal NOTES ABOUT MEN YOU KNOW

G. Myers, now chairman of the board. **Don Maddox** and **Percy H. Thompson** were made vice-presidents, and **A. G. Myers, Jr.,** secretary and treasurer.

Emil Luddercke is now boss finisher, and **Albion Smith,** second hand of carding, at Yantic (Conn.) Woolen Mills. They come from Hockanum Mills and Matson Mill, respectively.

Obituaries

J. P. Abbott, 77, vice-president and sales director, Providence Dyeing, Bleaching, and Calendering Co.

Harry W. Butterworth, Jr., 62, chairman of the board of H. W. Butterworth & Sons Co., on December 17.

Arthur J. Durham, superintendent, Hayward Hosiery Mills.

Joseph Fossel, 83, inventor of textile machinery, a consulting engineer in the textile industry, and for forty years with Atkinson, Haserick & Co.

Theodore Friedlander, 66, chairman of the board of Phoenix Hosiery Co.

Louis J. Gibbens, 69, Riegel Textile Corporation, on December 8.

Lonnie W. Green, 69, superintendent of Highland Park Manufacturing Co.

E. D. Johnston, 63, general superintendent of Peerless Woolen Mills and formerly with American Woolen Co., Webster, Mass.

George D. Lyerly, 64, president, Elliot Knitting Mills, Cuba, and secretary-treasurer, Lyerly Full Fashioned Mills, Inc., Hickory, N. C.

Charlie S. McKenzie, 56, owner and manager of Plymouth Hosiery Mills, High Point, N. C.

James W. Newkirk, 69, formerly with Southern Worsted Mills and Wuskanut Worsted Corp.

William Parker, 65, manager of the Charlotte, N. C., district of Allis-Chalmers Manufacturing Co.'s general machinery division.

Claude A. Phipps, vice-president of Continental Mills, Inc.

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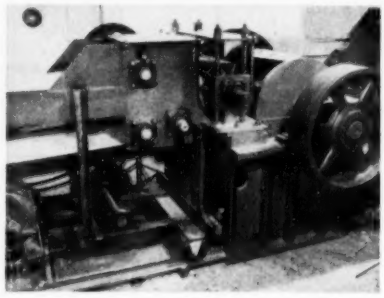

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In addition to their basic characteristics of design and construction, safety and lower operating costs, these new features your experience with synthetics will approve:

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- **Long feed rolls put all bearings outside the guide box.**
- **Ends of feed rolls are shaped to urge the fibers toward the center of the cutting element.**
- **Feed apron raised so that gravity helps guide the waste from the apron to the bed knife edge.**
- **Main frame wider than the head to facilitate removal of fiber that might get to the main shaft bearings.**
- **Feed, with separate motor drive, can be detached and rolled back for servicing purposes.**

These and other improvements are fully described and illustrated in Folder No. APP 201, sent you free on request.

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Edward Miles Mathewes, 84, assistant secretary-treasurer of Spartan Mills before his retirement three years ago.

Samuel A. Mauney, 78, president of Kings Mountain Manufacturing Co.

Matthew G. Thomas, 68, president of Cherokee Spinning Co. before his recent retirement.

Robert T. Wood, Sr., 72, former partner in Sheble & Wood, Inc.

Processing Acrilan

(Continued from page 153)

the comb will adequately remove short fibers and neps from "Acrilan."

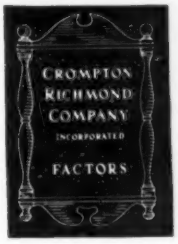
Again, due to bulk, the production of the Noble comb is reduced to approximately one-half that obtained with a similar denier and length viscose staple, or more nearly that of wool. However, in the finishing operations after combing to produce top, a 3-oz. end is made which is normal machine production. Finished top balls range in the neighborhood of 8 lb as compared to 10-lb regular rayon top.

In the drawing and spinning operations, "Acrilan" production is equal to that of good wool and no significant machine changes are necessary other than those normally used to set up for a given denier and length. Going back to carding, we emphasize that no oil or emulsion should be added to the finish now supplied on the yarn by The Chemstrand Corporation. If the fiber, however, is stock dyed, it will probably be necessary to pick it before carding; and since the dyeing of the fiber has removed most of original finish, it must be replaced.

On the woolen system, no changes in card settings over those used for a similar denier and length of viscose staple are necessary, and "Acrilan" stock may be fed directly to the breaker card without picking. In the case of stock dyed "Acrilan," we recommend the same procedure as to picking.

We still have an unsolved problem in weaving—namely, that of satisfactory size for a 100% "Acrilan" warp; and here we are not alone for all hydrophobic fibers have this same difficulty. We can safely say that we have tried over 400 size formulations with varying success. Recently, the most promising is the use of Acrysol No. 3 manufactured by Haas-Miller with a softener-lubricant added. With this we are not entirely satisfied, but acceptable weaving has been possible. We are optimistic that the joint efforts of the size manufacturers, ourselves, and our customers will soon result in a size formula easy of application, satisfactory in weaving efficiency, and readily removed in the dyeing operation.

In blends of 50% or less of "Acrilan" we suggest the standard size formula generally used for the other components in the yarn. Approximately a 10% increase in size content, however, will assure better protection for the warp ends. Of course, two-ply warps of 100% "Acrilan" yarns need not be sized to insure good weaving. No other comment is



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Cotton Week Poster

"It's Cotton Time" will be the theme of the National Cotton Council's official poster for National Cotton Week, to be held next May 11-16 for the 23rd year.

The 1953 poster shown here will be in three colors, featuring a white cotton boll against a yellow background with blue and brown overprinting. It displays the complete Cotton Week slogan, "It's Cotton Time: Pick Cotton — Look Smart . . . Be Cool . . . Feel Fresh," giving major emphasis to the first three words.

Posters, available in several sizes, and other items in a 25-unit display kit, are being prepared for use by retailers of apparel, floor coverings, and other household products.

needed in weaving, for "Acrilan" is now being woven by a number of well-known mills quite satisfactorily.

"Acrilan" can be dyed with acid dyes, chrome dyes, acetate dyes, some azoic dyes, and some vat dyes. At the present date, only the first four classes of dyes mentioned have been subject to much investigation.

A general method of applying acid dyes is as follows: Add the dye and bring to a temperature of 190 F. Add 5 to 10% sulfuric acid on the weight of goods in increments of 1% approximately 10 minutes apart. Raise the temperature of the dye liquor to 205 F as a maximum. Exhaustion depends on the percentage of acid in the dyebath and on the temperature plus acid when the temperature is above 180 F. The dyeing time should last from one to two hours after the final add of acid. Penetration into the fabric is obtained by slow and even rate of dye exhaustion. Penetration into the individual fibers depends on time, temperature, and acid concentration.

Practically any desired shade can be obtained with acid dyes. The fastness properties vary widely with the choice of dye and with the depth of shade. The wet crock is never particularly good with full shades. Other fastness requirements can usually be met when using selected dyes. With the regular acid dyes, it is sometimes useful to use an aftertreatment of tannic acid and tartar emetic for the improvement of wash and perspiration fastness of heavy shades. The best all around fastness properties have been obtained to date with chrome dyes applied by the top chrome method. A range of grays, dull blues and reds, and browns have been possible with this type of dye.

In the presence of wool, the majority of the dye will be picked up by the wool and, therefore, it is difficult to dye unions with wool using acid dyes. With "Acrilan" and nylon, some fair unions have been obtained.

The acetate dyes color the "Acrilan" quite easily when dyed at temperatures approaching the boil. The fastness properties are not as good as those obtained with acid dyes and, therefore, the acetate dyeing method is usually reserved for the dyeing of blends of "Acrilan" with wool or with viscose or cotton where the use of acid dyes is not practical. (Excellent fastness in blacks and navy shades can be obtained by dyeing with developed acetate dyes.)

The dyeing of blends is not very difficult so long as the fastness re-

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Textile School Enrollment for 1952-1953

3,153 students were enrolled last fall in twelve U. S. and Canadian textile schools as shown in the accompanying tabulation which was prepared from information supplied by the institutions. This was 225 less than the 3378 enrolled in the fall of 1951. In only one instance was the enrollment for 1952 greater than for 1951 and that was Georgia Tech with an increase of three students.

Study of these figures alone would indicate that the trend of textile school enrollment is downward. However, the picture brightens when the number of new students entering last fall is compared with the 1951 figures. Five of the 12 schools showed increases in the number of students entering, although the total number of new students for 1952 is 25 less than for 1951.

Spokesman for one school explained it this way: "Although the total enrollment for the school is down, the trend—as indicated by comparison of figures for new students—is definitely on the up-swing. Last year's graduating class included a still large number of G. I. students, while the current junior and senior classes are composed primarily of regular students just out of high school, and are therefore much smaller."

Textile School	Total Enrollment 1951	Total Enrollment 1952	New Students Entering 1951	New Students Entering 1952
Alabama Polytechnic Institute	52	47	24	22
Bradford Durfee Technical Institute	276[a]	237[a]	51	80
The Clemson Agricultural College	637[b]	607	225[c]	200[c]
Fairleigh Dickinson College	107[d]	99[d]	41[d]	43[d]
Georgia Institute of Technology	224	227	34	46
Lowell Textile Institute	536	517	149	130
New Bedford Textile Institute	250	228	65	86
North Carolina State College	533	501	139	154
Philadelphia Textile Institute	410	360	129	81
Rhode Island School of Design	166	154	47	41
Ecole des Textiles de St. Hyacinthe	145	136	43	42
The Provincial Institute of Textiles	42	40	15	12
TOTAL	3378	3153	962	937

(a) Evening school students 1951, 703; 1952, 710.
(b) Average for both semesters.
(c) Approximately.
(d) Day and evening students. Started using new building in 1952.

quirements are not very stringent. With viscose and "Acrilan," it is possible to dye both fibers using direct viscose dyes for the viscose and acetate dyes for the "Acrilan." Actually, a better looking fabric with better fastness can be obtained by acid dyeing the "Acrilan" and then direct dyeing the viscose. Care must be taken, however, to avoid acid damage of the viscose. With "Acrilan" and acetate fiber, the acid dyeing technique followed by careful acetate dye application is the only way available to obtain unions.

The use of temperatures in excess of 212 F are now possible in many plants especially for stock, top, or package dyeing. Temperatures between 235 F and 245 F appear to be ideal for obtaining excellent depth and penetration at reduced time cycles and reduced acid concentrations. Care must be exercised in the winding of packages so that tension does not tend to reduce the desirable bulkiness of the yarns.

In finishing, one can use nearly all types of equipment except those involving dry heat temperatures in excess of 300 F for any protracted period. A slight yellowing will take place after ten minutes at this temperature. Again, in order to preserve bulk in the yarns and fabrics, it is necessary to avoid excess tensions or pressures at elevated temperatures.

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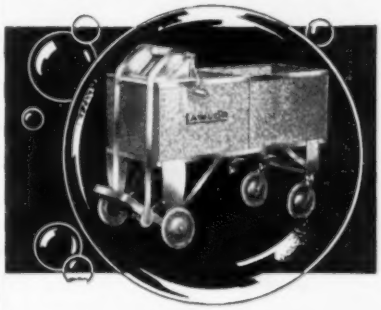

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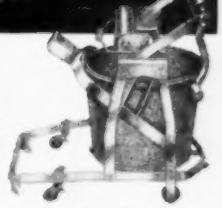

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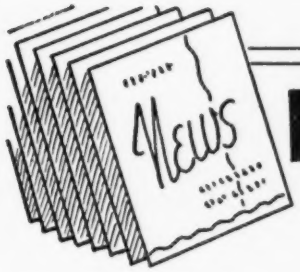

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This service is restricted to those engaged in operation and management of textile industries.

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2-2. Homogenizer Improves Slashing. Pamphlet by Manton-Gaulin Manufacturing Company shows how mechanical conversion of size by the Gaulin method produces better size. Gives installation pictures and specifications. Write: Manton-Gaulin Manufacturing Company, Inc., Everett, Massachusetts, U. S. A.

2-3. Machine Brushes. Illustrated Folder shows many types of machine brushes and describing their particular use for printing, washing, brushing, singeing, and shearing is sent free upon request. Write: Industrial Brush Company, Inc., Woodside Avenue, Little Falls, New Jersey.

2-4. Edge Position Control. Folder describes non-contact air-hydraulic edge position control for tentering frames, inspection machines, and other finishing applications. Write: Askania Regulator Company, 240 E. Ontario Street, Chicago 11, Illinois.

2-5. Clean, Dry, Compressed Air. 8-page color illustrated bulletin thoroughly describes aftercooling, air separating, and air filtering. Also gives size and capacity of R. P. Adams equipment. Write: R. P. Adams Company, Inc., 216 E. Park Drive, Buffalo, New York.

2-6. Diammonium Phosphate in Wool Dyeing. Color pamphlet gives technical dope on the use of Diammonium Phosphate in the control of the dye bath. Write: Victor Chemical Works, 141 West Jackson Boulevard, Chicago 4, Illinois.

2-7 Small Precision Metal Parts. Catalog by Torrington Company describes many special precision metal parts made by its Specialties Division. Write: The Torrington Company, Specialties Division, 500 Field Street, Torrington, Connecticut.

2-8. Pneumatic Butterfly Control Valves. Bulletin by Minneapolis-Honeywell describes butterfly valves designed to regulate the flow of air, gas, liquids, or steam in conjunction with indicating, recording, or non-indicating pneumatic controllers. Write for: Bulletin 8503, Station 64, Minneapolis-Honeywell Regulator Company, Wayne & Windrum Avenue, Philadelphia 44, Pennsylvania.

2-9. Monsanto's Lustrex X-820. Revised technical information on Lustrex X-820, a carboxyl-containing polyelectrolyte resin. Bulletin gives applications and advantages. Write: Plastics Division, Monsanto Chemical Company, Springfield, Massachusetts.

2-10. More About The Lint-Free Motor. Construction and application of Westinghouse's lint-free textile motors are described in a revised leaflet now available. Write for: B-3515-A, Westinghouse Electric Corporation, Box 2099, Pittsburgh 30, Pennsylvania.

2-11. The SRRL Lint Cotton Opener. Bulletin by Continental Gin shows sectional views of SRRL Opener; gives specifications, elements comprising opener and advantages to be had. Write: The Continental Gin Company, Birmingham, Alabama, for Bulletin 208.

2-12. Washers for Scouring, Bleaching, Acidifying. Well-illustrated booklet shows how Sargent's modern, high-capacity, continuous process washers can help maintain quality and decrease costs. Contains operation diagram and good commentary on construction. Write: C. G. Sargent's Sons Corporation, Graniteville, Massachusetts, U.S.A., for Bulletin 195.

2-13. Central Air-Conditioning Systems. 12-page catalog by Bahnson gives information on air-conditioning systems, as well as types of washers used in central station systems. Selected number of installations are treated also. Write: The Bahnson Company, 1001 South Marshall Street, Winston-Salem, North Carolina, for Catalog Section 22-A.

2-14. Standard Wool Grade Index. Revised cards show grades on Micron Diameters and Top Numbers and include a chart showing Fibre Diameter Distribution of Standard grades and substandard grades. Write: United States Testing Company, 1415 Park Avenue, Hoboken, New Jersey.

2-15. Motors for Roving & Spinning Frames. Booklet describes Louis-Allis soft-start textile motors. Gives charts showing speed torque curves; illustrating that a standard motor has too much standard Torque and too rapid acceleration. Write: The Louis-Allis Company, Milwaukee 7, Wisconsin, for Bulletin 801.

2-16. Extreme-Pressure Lubricant. Illustrated booklet outlines lubricating problems faced by industry in stepping up production with existing equipment and shows how Sunep, an extreme-pressure lubricant, can help. Write: Sun Oil Company, Philadelphia 3, Pennsylvania.

2-17. Self-Priming Pumps. New Bulletin by Rice Pump & Machine Company gives details and specifications of all model pumps from the 2"-7,000 G.P.H size to the 4"-40,000 G.P.H. Shows advantages and gives characteristics of Rice Pumps. Write: Rice Pump & Machine Company, Grafton, Wisconsin.

2-18. Gravity Feed Oilers. Bulletin by Oil-Rite describes new line of Large Capacity Gravity Feed Oilers recently developed. Gives specifications and diagrams. Write: Oil-Rite Corporation, 2388 Waldo Boulevard, Manitowoc, Wisconsin.

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in lbs. pull on remote dial.

Can be installed on any present idler roll and may be mounted in any plane. It's self-contained, small size, easily installed.

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FOR CONSTANT TENSION

This "LOD-CAP" Automatic Control can be added for single or multiple units without changes to remote reading indicating circuit.

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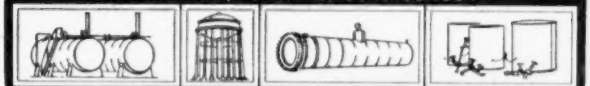

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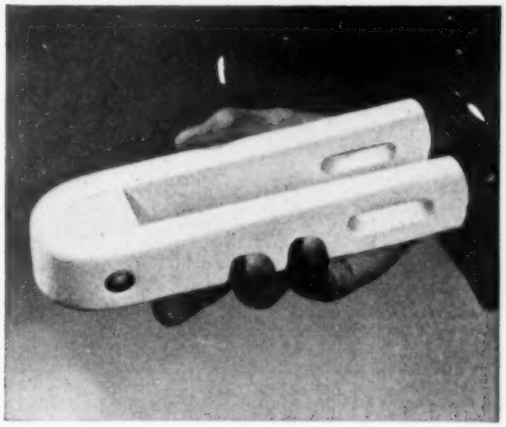

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21. VISION TESTING EQUIPMENT—Pamphlet entitled "What You Can Expect From a Good Vision Program" written by a prominent personnel director. Also circular describing the Keystone Occupational Visual Service.—KEYSTONE VIEW COMPANY, Meadville, Pa.

22. THE WONALANCET WAY—Is the title of a editorial booklet published five times a year and deals with current problems which appear worthwhile at the time they are written.—WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

PLANT & PLANT MAINTENANCE . . .

101. TEXTILE DIGEST—18-page manual reviewing performance-proved procedures for improved handling of more than 60 essential cleaning and related operations in textile mills.—OAKITE PRODUCTS, INC., 22 Thames St., New York, N. Y.

102. "TANK TALK"—Sixteen page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

107. FINNELL SCRUBBERS—Illustrated leaflets describing and giving specifications for the Finnell floor scrubbing machines.—FINNELL SYSTEM, INC., Elkhart, Ind.

108. MAPLE FLOORING—Booklet describing finishing of Northern Hard Maple Flooring—list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

111. INDUSTRIAL FANS—Catalog sheets with specifications describing the complete line of Murray Industrial fans for plant ventilation. Seven sizes described from 24" with 1/2 HP motor delivering 5700 CFM to 54" with 3/4 HP delivering 17,386 CFM, with advantages of heavy gauge metal construction brought out.—H. C. BIGLIN CO., 177 Harris ST., N.W., Atlanta, Ga.

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129. AIR CONDITIONING AND HUMIDIFICATION—Catalog section 101 lists and briefly describes each item of the complete Bahnson line of equipment for textile mill air conditioning and humidity control.—THE BAHNSON COMPANY, Winston-Salem, N. C.

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132. SANDING AND FINISHING—With Coated Abrasives, 88-page illustrated booklet on modern production methods, including information on the use of "Texalon" C-Ply take-up roll covering and Filler Cloth for short-ending cardcloth.—THE CARBORUNDUM CO., Niagara Falls, N. Y.

133. PAINTING SPECIFICATIONS AND COLOR CHIPS—Industrial Paint and Color Guide, CC146, gives full painting specifications for exterior and interior of industrial plants with complete color samples.—THE SHERWIN-WILLIAMS CO., Painter Maintenance Div., Cleveland, Ohio.

135. COLOR CONDITIONING—Booklet illustrated in color describes how DuPont color conditioning puts color to work for you. Many ideas on safety brought out which color can aid.—E. I. DU PONT DE NEMOURS & CO. INC., Finishes Div., Wilmington 98, Delaware.

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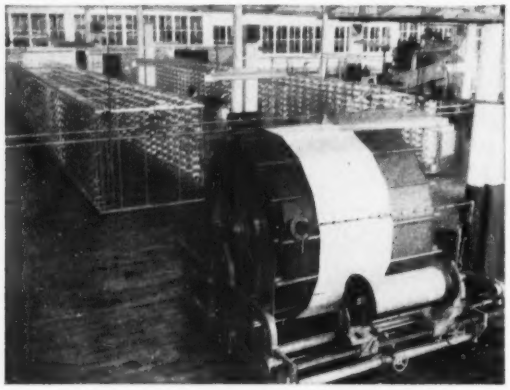

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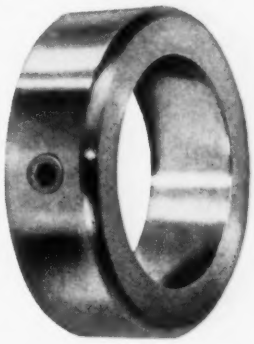

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147. HEATING AND AIR CONDITIONING CONTROLS—Bulletin F 2287-3 describes and illustrates automatic electric controls for heating, ventilating and air conditioning systems.—BARBER-COLMAN CO., Rockford, Ill.

150. RIHCO HUMIDIFIERS AND COOLING SYSTEMS—Bulletin describes new atomizers with construction lessening air consumption in humidifier systems, evaporative cooling systems.—ALDRICH MACHINE WORKS, Greenwood, S. C.

151. INDUSTRIAL BRUSHES—Illustrated booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

155. DUCTLESS AIR CONDITIONING—24-page illustrated Catalog No. 2 on Ameo humidification and ductless evaporating cooling, along with other Ameo humidification devices. Contains relative humidity tables and textile regains.—AMERICAN MOISTENING CO., Providence, R. I.

162. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs as well as preserving textile mill floors.—G. H. TENNANT COMPANY, 2530 N. Second St., Minneapolis 11, Minn.

167. COLOR CONDITIONING FOR INDUSTRY—Booklet describing how color is used to reduce maintenance costs, increase production, curtail fatigue, improve employee morale.—E. I. DU PONT DE NEMOURS & CO., INC., FINISHES DIV., Wilmington, Delaware.

173. BLOWERS AND EXHAUSTERS—Bulletin No. 3014 D describes types "E" and "RE" electric blowers and exhausters. Uses and full description of each with detail drawings.—BUFFALO FORGE CO., 490 Broadway, Buffalo 5, N. Y.

174. PAINT STRIPPING BOOKLET—Illustrated booklet providing helpful data on latest materials and methods for simplified stripping of paint. Methods described include: (1) steam gun; (2) hot flux-on; (3) cold spray; and (4) tank immersion.—OAKITE PRODUCTS, INC., 22 Thames St., New York 6, N. Y.

179. BETTER WAYS—Form 2020, condenser catalog of standard and special model Toledo Industrial Scales that are being used in receiving shipping, and production operations by all industries including the textile field.—TOLEDO SCALE CO., Box 97, Toledo, Ohio.

181. AIR FILTRATION—Bulletin 234 describes and illustrates the Auto-Airmat, which is the Automatic Dry-Type air filter. Principle of operation, performance characteristics, construction and installation fully discussed.—AMERICAN AIR FILTER COMPANY, INC., 275 Central Ave., Louisville 8, Ky.

187. SILICONE INSULATION—Data Sheets 14C describing silicone electrical insulating varnishes used in class H equipment. Protection and longer life with Silicone insulation described.—DOW CORNING CORP., Midland, Mich.

188. PROGRESSING-CAVITY PUMPS—A new principle in pumps. Self-priming, positive displacement, uniform flow features discussed.—ROBBINS & MYERS, INC., Pump Div., Springfield, Ohio.

POWER TRANSMISSION, MOTORS, BELTING, LUBRICATION . . .

201. V-BELT DRIVE CATALOG—This handy, pocket-sized catalog helps you make quick and easy selections of any Dayton V-Belt Drive from 1 to 1000 horsepower. Contains many concise, accurate drive tables, diagrams and other important engineering data.—DAYTON RUBBER CO., Dayton, Ohio.

202. RELIANCE MOTOR—Bulletin C-130 on the explosion-proof, corrosive-resisting a-c motor. Design features exclusive with the new motor are enumerated and illustrated in the bulletin.—THE RELIANCE ELECTRIC & ENGINEERING CO., 1076 Ivanhoe Road, Cleveland, Ohio.

203. TREADED LEATHER BELTING—This 16 page booklet describes Houghton's line of patented, specially treaded leather belting for all types of power transmission. Booklet includes valuable engineering and maintenance section.—E. F. HOUGHTON & CO., Philadelphia, Pa.

208. LOOM MOTOR BULLETIN—The new design of this ball bearing motor is claimed to represent an advance in the design of loom motors fully discussed.—THE LOUIS ALLIS CO., 427 E. Stewart St., Milwaukee, Wisconsin.

212. GATES TEXTILE ACCESSORIES—Handy pocket-size catalog RHM-7, fully illustrated, gives specifications of Gates textile accessories including pickers, lug straps, check straps, cone belts, evener belts, harness straps, take-up roll covering, and others.—THE GATES RUBBER COMPANY, 1901 Broadway, Denver 17, Colo.

218. BALL BEARINGS FOR TEXTILE MACHINERY—A 40-page catalog illustrating Fafnir Ball Bearing units for replacement or new applications in all phases of textile processing.—THE FAFNIR BEARING CO., New Britain, Conn.

221. OILER MANUAL—Highly informative and helpful manual explains in detail the proper application of Trico, Visible, Automatic Oilers to various bearing surfaces. Construction information and valuable suggestions.—TRICO-FUSE MANUFACTURING CO., 2948 N. 5th St., Milwaukee 12, Wisc.

226. COTTON CARD DRIVES—Booklet B-4596 which describes Westinghouse individual cotton card drives. Through the proper design of card motors by Westinghouse, individual drive is now practical and the booklet gives full information.—WESTINGHOUSE ELECTRIC CORPORATION, P. O. Box 868, Pittsburgh 30, Pa.

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236. LEATHER BELTING CALCULATOR—Handy and attractive calculator for determining belt speeds, horsepower per inch of belt widths, etc., will be sent free on request.—J. E. RHOADS & SONS, 35 N. 6th St., Philadelphia, Pa.

237. MOTOR CONTROL—Brochure gives description and engineering data on the Cutler-Hammer Motor Control for roving and spinning frames. Users listed and advantages discussed.—CUTLER-HAMMER INC., Milwaukee, Wisc.

239. LICKERIN AND DOFFER BELTS—Brochure and full information on Lickerin and Doffer belts supplied by—TON-TEX CORPORATION, 16 West 61st St., New York 23, N. Y.

254. LOOM RECONDITIONING PROGRAM AT TALLASSEE MILLS—Reprint of exclusive story on the loom reconditioning program at one of the biggest

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southern mills. This article shows how central lubricating system was built into each rebuilt loom as part of the improvement program.—REUR LUBRICATING CORPORATION, Rochelle Park, N. J.

259. **SUNOTEX MACHINE OIL**—booklet describing this machine oil as being "custom-made" for the textile industry. Advantages discussed and pictures of uses which includes knitting machinery.—SUN OIL COMPANY, Philadelphia 3, Pa.

265. **SERVICE PROCEDURE BALL BEARINGS**—A helpful manual for maintenance engineers giving helpful habits on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism.—NEW DEPARTURE, DIVISION OF GENERAL MOTORS CORP., Bristol, Conn.

266. **LUBRICATION**—Bulletin B62-DC, describes properties of Silicone greases used in motors at high speeds and temperatures, on oven conveyors, tenter frames, can dryers, etc. Decrease by 10 to 1 in relubrication requirements described.—DOW CORNING CORP., Midland, Mich.

277. **SPECIAL TEXTILE MOTORS**—Bulletin 51B-6055A describes special features of "Quick-Clean" motors, including discussion on free air flow, prelubricator bearings, rigid cast iron frame and double insulation.—ALLIS CHALMERS MFG. CO., Milwaukee, Wis.

INSTRUMENTS, STEAM SPECIALTIES . . .

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303. **PROCESS CONTROL EQUIPMENT**—Catalog containing brief description of standard and special process control equipment engineered for textile industries. Includes schematic diagrams.—MASON-NEILAN REGULATOR CO., 1199 Adams St., Boston, Mass.

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312. **ACCURATE MEASURE**—Booklet describing the Trumeter line of measuring machines for silks, cottons, linens, woolens, etc. Description and illustration of each machine with dimension diagrams and advantages of each machine.—THE TRUMETER CO., 1265 Broadway, New York, N. Y.

321. **RED-RAY BURNERS**—Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., 445 W. 45th St., New York, N. Y.

324. **STROBOTAC**—Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

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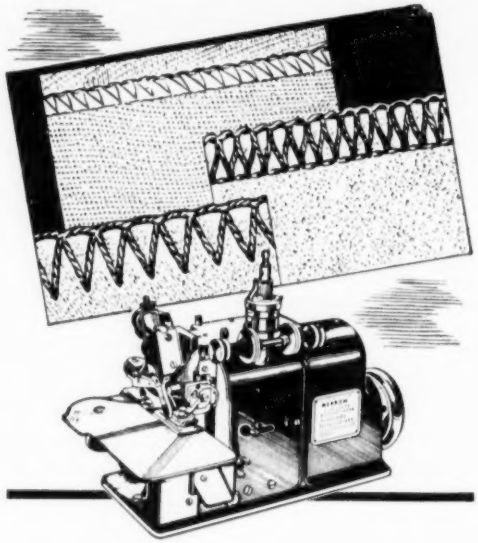

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1012. **"SERVES YOU RIGHT"**—Is theme of succint review of forklift trucks, powered hand trucks and industrial towing tractors, with emphasis on proper planned materials handling systems, which can be obtained from CLARK EQUIPMENT CO., Industrial Truck Div., Battle Creek, Mich.

1013. **"A STORY OF TRACTOR TOOLS AND THEIR USE."**—Comprehensive illustrated guide effectively present in cartoon-style the many principal uses for this type of Equipment.—HYSTER CO., 2903 N. E., Clackamas St., Portland 8, Ore.

1025. **ELECTRIC HOISTS AND CRANES**—Booklets describing a complete line of Electric Overhead, Cab and Floor-Operated Traveling Cranes, and a similar complete line of Electric Hoists. All fully discussed with pictures and engineering diagrams.—SHEPARD NILES CRANE & HOIST CORP., Montour Falls, N. Y.

1029. **ELECTRICAL INSULATING MATERIALS**—Bulletin G.F.-50 describes 5 high-strength plastics: Diamond vulcanized fiber; vulcoid, A C-D dielectric material; Dilecto, a laminated thermosetting plastic; Celoron, a fabric-base molded plastic; and Micabond, mica in most usable form. Full information on each in forms available. — CONTINENTAL - DIAMOND FIBRE COMPANY, Newark, Dela.

1031. **MOTOR-DRIVEN TROLLEY HOISTS**—12-page illustrated booklet describing Robbins & Myers motor-driven trolley hoists. Capacities from 1000 to 20,000 pounds. Bulletin 805-A.—ROBBINS & MYERS INC., Hoist & Chain Div., Springfield, Ohio.

MISCELLANEOUS . . .

1101. **AUTOMATIC BOBBIN REFINISHER**—A descriptive bulletin illustrating and describing method of refinishing throwing bobbins on a production schedule.—J. M. NASH COMPANY, 2300 N. 39th St., Milwaukee, Wis.

1102. **BALING PRESSES**—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. **UNBRAKO SCREWS**—Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1107. **AUTOMATIC QUILL POLISHER**—Bulletin describes production machine for refinishing loom bobbins. Tells how quills can be kept in perfect condition at minimum labor cost.—J. M. NASH CO., 2360 N. 30th Street, Milwaukee 10, Wis.

1108. **FABRICATION OF U. S. STAINLESS STEELS**—136-page book covering use of stainless steal in textile equipment from cutting to cleaning. Includes corrosive-resistance tables for chemicals.—CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh, Penn.

1110. **CUTTING MACHINE**—A collection of specification sheets and general descriptive matter covering cutters for thread waste, staple, fiber, etc. Complete description and uses.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1111. **BRUSHES**—A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. **THE RANDOM WEB PROCESS**—Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams.—CURLATOR CORPORATION, Textile Division, 56 Blossom Rd., Rochester, N. Y.

1115. **TEXTILE WRAPPING MACHINES**—Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfeld, most protective package made.—HAYSSEN MANUFACTURING CO., Sheboygan, Wis.

1117. **CUSTOM MADE THREAD GUIDES**—Illustrated booklet describing uses and physical properties of the "AlSiMag" line of Thread Guides. Advantages fully discussed with picture and specifications of each type.—AMERICAN LAVA CORP., Chattanooga 5, Tenn.

1122. **BALING PRESSES**—Bulletins available describing this company's line of motor-driven and hydraulic baling presses for finished goods, textile fibers, wool, and waste of all kinds.—LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wis.

1123. **CHROMIUM PLATING**—New booklet tells how Walhard engineered hard chromium plating service works for industry. Walhard's capacity to produce, controlled quality, and economical operation are discussed along with pictures of the operations.—WALTON & LONSBURY, Attleboro, Mass.

FEBRUARY, 1953

Please send, without obligation, additional information on New Equipment and booklets described (give Key numbers) .....

.....

.....

Please send more information on advertisements (give Page numbers)

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◀ Handy Return Card

USE THIS OPPORTUNITY TO INFORM YOURSELF OF CURRENTLY AVAILABLE LITERATURE DEALING WITH MACHINERY, EQUIPMENT AND SUPPLIES FOR TEXTILE MILLS. FILL OUT THE ATTACHED CARD TODAY.

What the TEXTILE MILLS are doing

Ace Yarn Winding Co. has rented a one-story building at 79 Clifton Ave., Brooklyn, N. Y., for expansion purposes.

A new mill for production of aluminum wire cloth insect screening has been organized by **Alabama Wire Co.,** Florence, Ala.

Alda Knitwear, Inc., recently chartered, will operate a knitting mill for manufacture of outerwear. Grace Scorsone, 32 Broadway, New York City, is attorney and representative.

A print cloth plant, to provide employment for about 600 persons, is under construction by **Alice Manufacturing Co.** at Pickens, S. C.

American Pad & Textile Co., Greenfield, O., has acquired **Seaway Manufacturing Co.,** canvas products, New Orleans, La., to be operated as a branch plant.

American Woolen Co. has closed its Ayer Mill at Lawrence, Mass., and the Sawyer Mills at Dover, N. H., and placed the property on the market.

A textile printing plant will be operated by the recently chartered **Apple Kay Processing Corp.** Louis Rifkin, 350 Fifth Ave., New York City, is representative.

The **Blackstone Wool Combing Co.** plant, Bellingham, Mass., has been purchased by Winslow Bros. & Smith, Inc., a division of Armour & Co.

California Weavers, Inc. 1020 East 25th St., Los Angeles, Calif., has begun manufacture of cotton rugs.

A modernization and improvement program is under way at **Capitol Piece Dye Works, Inc.,** Garnerville, N. Y. Garnerville Dye Works, an associated interest, is also making improvements, including installation of new equipment.

The William Carter Co. has announced an expansion program at its plants in Forsyth, Ga., and Needham Heights, Mass. When increased, the Forsyth mill will handle double its present production capacity.

Cline Hosiery Mill, Spruce Pine, N. C., has a one-story addition to the

HOW ANDERSON SHIELDS INCREASE SPINNING ROOM EFFICIENCY

Spinning rooms using Anderson Shields save time and money, and prevent disruption when unnecessary breaking, chipping, and splitting of bobbins and spools is avoided. In a year's time these items alone can amount to a surprising sum . . . Insist on Anderson and get the best protection meta shields afford . . . Watch your spinning room efficiency increase!

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Metal Protection for Wood Turnings

J. N. ANDERSON, *Treas.*

LAWRENCE, MASS., U.S.A.

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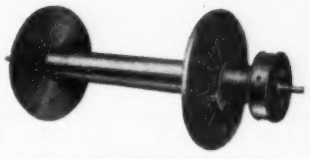
A TIME TESTED LINE

Engineered for Production

MILTON WARP BEAMS

for BROAD, NARROW FABRIC, RIBBON, VELVET, CARPET LOOMS

BROADLOOM BEAMS



For C & K Looms (pictured) and Draper Looms (with let-off gear). Steel barrels, cast iron flanges.

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Steel barrels, with your choice of adjustable head and fixed shaft (pictured) or fixed head with removable shaft.

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DESIGNERS · ENGINEERS · MANUFACTURERS

MILTON, PENNA.

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1. Revolutionary, new **HIGH SPEED TRICOT MACHINE** in "test" production — ready for delivery in early '53!

Outstanding developments of these machines surpass all previous **HOFMANN-MAYER** accomplishments!

2. Amazingly advanced, completely redesigned 112" **SIMPLEX** practically doubles production capacity!

3. New, **TEXTILE SUEDE-FINISHING MACHINE** for new and improved fabrics of all types.

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O. B. LAND—Athens, Ga.—Box 1187—Phone 478
L. H. MELLOR, JR.—Mid-Atlantic States—123 Treaty Rd.—Drexel Hill, Pa.—Phone Hilltop 6-1563
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SCOTT TESTERS (SOUTHERN) INC.

. . . as the only authorized auxiliary source of Servicing, Parts and Supplies for users of Scott testing equipment

Located at 216 Reidville Rd., Spartanburg, S. C.

MACHINE SHOP capable of repairing and rebuilding, or converting to the "Accr-O-Meter".

COMPLETE STOCK of factory-made parts and supplies.

FACTORY-TRAINED PERSONNEL capable of traveling to users' plants for on-the-spot repairs.

Manager: John Hargreaves.

Requests for servicing, parts and supplies may be made direct to Spartanburg by users nearer that source. Open for business March 1, 1953.

SCOTT TESTERS, INC. 60 Blackstone St. Providence 5, R. I.

Standard of the World

What the TEXTILE MILLS are doing

mill under construction which will have a floor area of 4200 sq ft.

Debonaire Hosiery Mills, Inc., recently chartered, will manufacture full-fashioned hosiery for women. Attorney and representative is Alvin W. Drucker, 2440 Sedgwick Ave., Bronx, N. Y.

Diamond Sportswear Co., Philadelphia, Pa., has leased 10,000 sq ft additional floor space at Third and Spruce Sts., for expansion in output.

Duesberg-Bosson Woolen Spinning Co., Jefferson, Mass., has purchased the property previously occupied under lease.

By consolidating the No. 6 and No. 4 plants at Durham, N. C., and converting No. 1 plant to manufacture of percale, **Erwin Mills** expect to double their percale sheeting production.

Fibre Products, Inc., Mount Holly, N. C., has changed its name to **Holly Mills, Inc.**

Firth Carpet Co., Firthcliffe, N. Y., has begun production of a new line of cotton carpets. Manufacture of wool carpeting will be continued as before.

Fulton Bag & Cotton Mills have under construction a one-story addition to their plant in New Orleans.

Gilmar Knitting Mills, Philadelphia, Pa., have liquidated their machinery and equipment.

A building at High Point, N. C., has been leased by **B. F. Goodrich Co.,** Textile Division, for warehouse service.

A new department for knitting tubular coverings from glass fiber yarns for industrial service has been started at **Samuel Granoff Manufacturing Co.,** Central Falls, R. I.

Greenwood Mills have an expansion program under way at their plant in Ninety-Six, S. C. Considerable additional equipment is being installed.

Haynsworth Mill, Anderson, S. C., has under construction a one-story addition to the plant, having about 27,000 sq ft floor space.

James Lees & Sons Co. has announced expansion plans at several of its plants. New warehouse facilities in Cleveland, O., Los Angeles Calif., Dallas, Tex., and Atlanta, Ga., will soon be available. Additions are planned to the plants at Glasgow, Va., and Atlanta. Main mill and office are at Bridgeport, Pa.

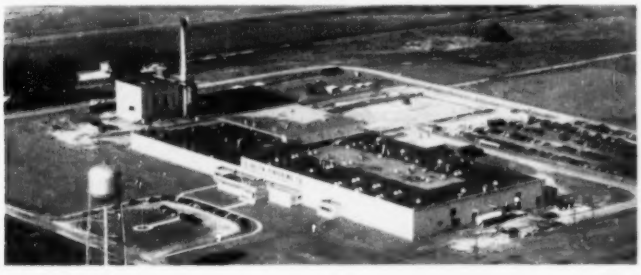
Leser Knitting Mills, Inc., will operate a knitting mill for production of outerwear. Morris E. Tonnelson, 350 West 57th St., New York, N. Y., is attorney and representative.

Lusal Knitwear, Inc., was recently organized for manufacture of outerwear. The new comany is represented by Isidor Platnick, 1339 49th St., Brooklyn, N. Y.

Mayfair Mills, Arcadia, S. C., have joined the Institute of Textile Technology. In announcing the membertion to the buildings, now under construction. The firm is a division of J. P. Stevens & Co., Inc.

Delta Finishing Expands

Delta Finishing Co. is undergoing an expansion program at its plant in Wallace, S. C., which includes a major addi-



Do Your Employees Read The Wrong Literature?

Employee relations executives agree much of the literature employees read distorts their thinking about business. And literature distributed by the payroll enclosure method is often labeled "propaganda."

A Solution to the Problem—To meet the problem, N. R. B. is establishing Information Rack Centers in plants and commercial establishments across the country. Through this method employees select literature on a *voluntary* basis. Positive thinking is developed.

The free booklet, How to Strengthen Employee Relations With Information Rack Centers, explains how you may profit from this successful program. Send for it today.

THE NATIONAL RESEARCH BUREAU, INC.
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DUNKING STATIONS!

During the past 7 years, hundreds of plants have discovered that SIPCO "Dunking Stations" are the "all time" solution to their plant smoking problem.

Built for hard industrial use—and abuse! Cigarets, cigars, matches extinguished immediately—no smoldering—no fire hazard.

Unit No. 1—Heavy cast aluminum canister, attractive metal sign, upright and heavy weighted base for use on floors, aisles, etc.

Unit No. 2 (Illustrated)—Same as Unit No. 1, except without upright and base. Easily mounted on walls, columns and posts.

Unit No. 3—Canister alone, with mounting bracket.

Send TODAY for new illustrated folder which gives complete details.

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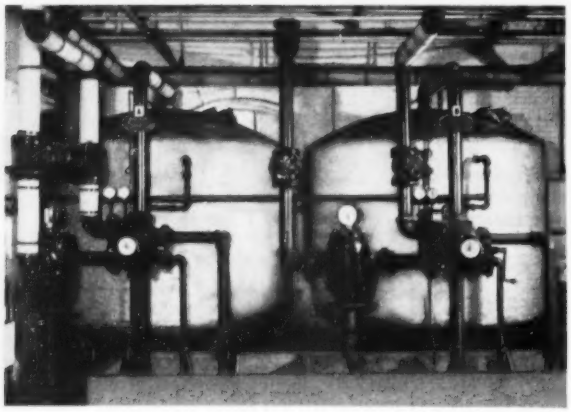

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Empire's Water Supply—the Chadakoin Creek at Jamestown, N.Y.—became polluted. Color rose to 60 ppm and turbidity to 25 ppm, causing streaks, stains and off-shades. Inspector's insistence on quality increased re-runs. Water hardness of 6 grains added to these troubles—wasted soap and detergents. Boilers scaled and wasted fuel.

Permutit thoroughly studied these problems and installed the following: 4 Permutit Pressure Filters; Permutit Chemical Feeders for alum, alkali, and chlorine dosages; 2 Permutit Softeners filled with Permutit Q, the new high capacity zeolite.

Soft, clear water resulted—increasing dyeing output. Greater penetration and uniformity raised quality—saved dyestuffs. Seldom are lots re-run. Zero soft water reduced soap consumption, saved fuel by eliminating boiler scaling.

Best of all—this Permutit installation more than paid for itself in less than two years!

Better write today for complete information. THE PERMUTIT COMPANY, Dept. TI-2, 330 West 42nd Street, New York 36, N.Y., or Permutit Company of Canada Limited, 6975 Jeanne Mance Street, Montreal.

WATER CONDITIONING HEADQUARTERS FOR OVER 40 YEARS

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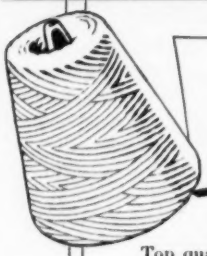
MACHINE SEWING THREADS



HIGH SPEED HIGH TENSILE KNOTLESS

"PEDIGREE"

Top quality, knotless, high speed, rated by constant users as equal to or better than many combed threads. Particularly adaptable for high speed bag closing and multiwall bag manufacturing.

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Medium Grade Knotless Thread for high speed bag closing.

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Medium Grade Knotless Thread for Cotton and Burlap Bag manufacturing.

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KLIPLOK CLAMPS FOR FUSE CLIPS

- **Step Up Production**
- **Stop Heating and Arcing at Contacts**
- **Eliminate Burnt Fuses and Clips**
- **Prevent Fire and Accident Hazards**

TRICO "Kliploks" lock fuses and clips together and assure smooth, easy flow of current. Easily and quickly installed . . . Low in cost . . . Pay for themselves many times over. There's a size and type for every fuse clip.

Also Handy for:—

- Cable Splicing
- Tapping to Bus Bar
- Drilling, Soldering, etc.

WRITE FOR BUL. NO. 6

TRICO AUTOMATIC OILERS

- **Save Oil, Time, Worry**
- **Eliminate Hand Oiling**
- **Reduce Bearing Failures**

Shatterproof plastic and glass reservoir types. Assure maximum machine life. Easily installed.

WRITE FOR FREE CATALOG

TRICO FUSE MFG. CO. MILWAUKEE, WIS.

What the TEXTILE MILLS are doing

ship, Frederick B. Dent, vice-president, pointed out that it was a further step in the company's policy of striving for maximum efficiency and quality.

A new addition to **Lowell Textile Institute,** to be used as an administion building, is under construction.

A new branch mill at Bentonville, Ark., is planned by **Munsingwear, Inc.,** Minneapolis, Minn. It will be equipped for manufacture of women's full-fashioned hosiery.

Nashawena Mills, New Bedford, Mass., have disposed of their mill properties. Spinning Mill No. 2 and waste house have been acquired by Continental Elastic Corporation, for expansion.

Newland (N. C.) Hosiery Co., an interest of Vaughan Knitting Co., has been organized for production of socks and anklets for men and boys, and misses' anklets.

Robert M. Shavick, 140 Market St., Paterson, N. J., is attorney and representative for the newly chartered **Nylex Processing Co.,** organized for dyeing and finishing of silks, synthetic fabrics, cotton goods, etc.

Oregon Flax Textiles, Inc., Salem, Ore., a division of National Automotive Fibres, Inc., has developed a cotton division for production of cotton carpets. The firm is also producing high pile wool carpeting with linen backing.

A new plant has been opened by **Park Knitting Co.** in New London, Wis., for production of 54-gauge hosiery and other textile products. It was formerly used by Holeproof Hosiery Co.

A new refrigeration plant has been completed on the property of **Parkdale Mills, Inc.,** Gastonia, N. C.

The Lawrence, Mass., mills of **William Whitman Co., Inc.,** comprising Arlington and Monomac divisions, have been purchased by Lawrence Industrial Corp., a subsidiary of Crescent Corp.

A one-story plant, with about 150,000 sq ft floor space, has been constructed in New Orleans by the **Plymouth (Mass.) Cordage Co.**

Puritan Cordage Mills, Inc., has constructed a one-story addition to its mill for increased capacity.

Putnam (Conn.) Dye Works have taken over a section of the mill of Putnam Worsted Mills, Inc., and will specialize in worsted and woolen yarns.

San Francisco (Calif.) Knitting Mills, Inc., has taken over a building on First St. which is being equipped for manufacture of women's full-fashioned hosiery. M. Bernstein is general manager.

Spurgeon Hosiery Corp., 100 Berkley St., Philadelphia, Pa., has begun production of 66-gauge nylon hosiery.

The Chicago office of **Standard-Coosa-Thatcher Co.** has moved to 222 W. Adams St.

Stardust, Inc., has leased the plant of Hidel Manufacturing Co., Hazlehurst, Ga., and will occupy for production of synthetic fabric specialties. Morris Seiff is president.

Steiner & Co., Milford, Del., wool garnetting and picking, has under construction a one-story addition to the mill, for increased capacity.

J. P. Stevens & Co. has under construction a building at Greensboro, N. C., to be used as a warehouse for company mills in the area.

Stylewise Mills, Inc., Carrollton, Ga., which previously changed production from full-fashioned hosiery to nylon tricot cloth, has returned to manufacture of full-fashioned hosiery for women. Both 51 and 66-gauge hosiery will be produced.

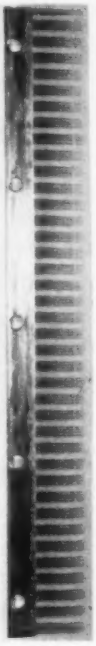
Sunset Line & Twine Co., Petaluma, Calif., nylon and linen rope and cord, is establishing a branch mill at Florence, Ala.

Superba Manufacturing Co., Inc., recently organized for manufacture of cotton toweling, napkins, etc., has taken over the former factory of Steel Heddle Manufacturing Co., Greenville, S. C. Emil V. Wilson is vice-president and secretary.

Varley Waste Co., Fall River, Mass, was recently chartered for manufacture of cotton waste and kindred specialties. Richard C. Levine is president.

White Horse Mill, Greenville, S. C., the first complete bale-to-cloth cotton mill erected in this country since World War II, is undergoing an expansion program which will include the installation of 6000 new spindles and 120 looms.

CONTINUOUS STRIPPER NEEDLE BARS COSTING YOU TOO MUCH?



You don't have to buy new continuous stripper needle bars every time a set wears out.

We can rebuild your bars for considerably less than the cost of new ones, and you'll have a tough time telling them apart.

We've rebuilt more than 2,000 sets and haven't had a complaint yet . . .

Let us help you cut your maintenance costs! Write for prices and details today.

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P. O. BOX 906 COLUMBUS, GA.

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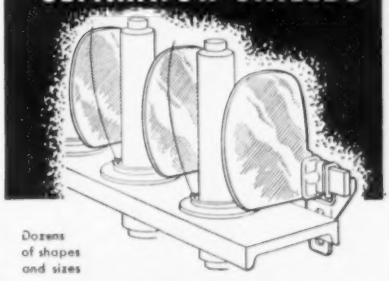

Dozens of shapes and sizes

BETTER YARN AT LESS COST

- Fewer ends down—some mills report 27% less
- Use two numbers lighter travelers for higher-strength yarn
- Polished aluminum blades stronger than steel—much lighter—cost less
- Non-slotted blades mean less wear on yarn, less lint, fewer slubs
- 7,000,000 in use by more than 400 mills

Coleman Co., Box 3597, Greenville, S.C.
Roy Schrimshire, Box 906, Columbus, Ga.
Matthews Equip. Co., 93A Brdwy., Prov., R. I.

WHITEHEAD ENGINEERING CO.
522 WEST PEACHTREE STREET, N. W.
ATLANTA 3, GEORGIA

UNBRAKO®
self-locking
CUP POINT

The point that won't work loose

Unique, counterclockwise knurls on the cup point make these UNBRAKO Socket Set Screws self lockers, prevent them from loosening. UNBRAKO Self-Locking Set Screws stay tight even in poorly tapped holes, reduce maintenance costs and cut production losses. Standard sizes—#4 to 1" in a full range of lengths—are available for prompt delivery from your UNBRAKO industrial distributor. Write for UNBRAKO Standards. SPS, Jenkintown 34, Pa.

Our Fiftieth Year : A START FOR THE FUTURE

UNBRAKO SOCKET SCREW DIVISION **SPS**
JENKINTOWN PENNSYLVANIA

LANE BASKETS
ARE MATERIALLY
BETTER

Here's why

- Over-size casters for easy running of any load
- Full capacity bodies
- Hardwood bottoms—dual riveted—stronger than steel
- Heavy duck sleeves for holding body to frames
- Rounded bottom rivets for smooth surfaces
- **Self-embedded rivets in duck prevent sharp cutting edges**

Self-embedded rivets in the duck prevent sharp cutting edges. That's the kind of rivets you'll find in all Lane canvas baskets—not the splitting type that leave sharp edges to snag or mar delicate materials or scratch employees.

All handles and leather rim binding are secured this way—assure a firm grip on the canvas—will not pull out under stress.

Investigate Lane baskets, hampers and trucks today and see for yourself why Lane is the standard of quality.

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Lane

THE LANE BASKET

W. T. LANE & BROS., INC. Poughkeepsie, New York

DRONSFIELDS' PATENT
ATLAS BRAND
EMERY FILLET

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The Nation's largest manufacturer of Sizing Compounds, Gums, Waxes and other kindred products for all warp yarns.

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SPECIALIZING IN TEXTILES FOR OVER ONE-THIRD OF A CENTURY

PAYROLL CONTROLS COST SYSTEMS
SPECIAL REPORTS WORK LOAD STUDIES
COST REDUCTION REPORTS

Ralph E. Loper Co.

GREENVILLE, S. C. FALL RIVER, MASS.

SUPPLIERS News

WHAT THEY ARE DOING

Aluminum Company of America is planning construction of a fabricating plant in the Lancaster, Pa., area, for production of aluminum screw machine products, fasteners, rivets, and nails.

Scott Testers, Inc., of Providence, R. I., has announced the appointment of Scott Testers (Southern) Inc., 216 Reidsville Rd., Spartanburg, S. C., as an authorized source of service, repairs, supplies and parts for Scott testing equipment. John Hargreaves will direct the activities of the establishment which will be staffed with factory-trained personnel available to travel to the mills for such servicing as can be done there, or for transporting equipment to the shop for servicing, rebuilding, and modernization more extensive than it is advisable to perform at the mill. It is contemplated that customers in North and South Carolina, Georgia, Alabama, eastern Tennessee, eastern Mississippi, and southern Virginia will utilize this facility. Present policies and representation will be retained with reference to sales of new equipment and engineering assistance.

Edmund C. Horman has been made regional sales manager for the New York metropolitan area for **Baker-Raulang Co.** He was formerly with Towmotor Corp. E. E. McVeigh has been named manager of commercial sales in the firm's western division; and R. T. Tiebout was appointed manager of government sales.

Beckman Instruments, Inc., has announced the appointment of Philip Del Valle as plant manager, Synchro division. Mr. Del Valle was previously with the Doelcam Corp.

Better Packages, Inc., Shelton, Conn., has announced an arrangement whereby the Industrial Tape Corp. is granted national marketing privileges on the Better Packages' pressure sensitive tape dispenser line. Industrial Tape distribution will be supplemental to Better Packages' marketing.

Morris Copeland of Morris R. Copeland & Sons, Griffin, Ga., is now representing **Boger & Crawford,** mercerized yarns, in the states of Georgia, Tennessee, and Alabama.

Cloverleaf-Freeland Corp. has appointed W. S. Taylor, Inc., as representative to handle accounts other than among the throwsters.

David Bedell, formerly with Mount Hope Finishing Co., has joined the New York sales staff of **Cold Spring Industries, Inc.,** the sales division of **Cold Spring Bleachery.** Robert Ritter, formerly in the New York sales office, has been transferred to the mill in Yardley, Pa., and will act as special liaison between sales and production.

Dr. Max E. Bretscheger, formerly vice-president, has been elected president of **Buffalo Electro-Chemical Co., Inc.** He succeeds the late Charles A. Buerk. Frederick A. Gilbert was elected vice-president, and Charles J. Kellogg, secretary-treasurer.

Dr. Bretschger

Edwin G. Holt has been elected vice-president and John E. Field, assistant treasurer, of **Cone Mills, Inc.**

H. Frank Phelps has retired from **Crompton & Knowles Loom Works** after fifty-five years of service with the company. He is succeeded as manager of the Philadelphia office by James Hewitt, Jr.

Tom W. Kitchen, 1201 South Carolina National Bank Building, Greenville, S. C., has been made a representative for **Deublin Co., Inc.,** manufacturers of rotary joints.

Hugh S. Ferguson was elected president of **Dewey and Almy Chemical Co.,** succeeding Bradley Dewey, now chairman of the board of directors.

E. I. du Pont de Nemours & Co., Inc., has announced plans for con-

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John Wyatt, P. O. Box 701, Greensboro, N. C.
NORTHERN REPRESENTATIVES:
Guy C. Burbank, 32 Beaconsfield Rd., Worcester 2, Mass.
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SUPPLIERS News
WHAT THEY ARE DOING

struction of a laboratory for research and development work on "Dacron" polyester fiber. It will be located at Kinston, N. C., on the site of the new fiber plant.

William R. Fox, Box 380, Providence, R. I., has been appointed New England representative for **Ragan Ring Co.**, spinning and twister rings, and **Russell A. Singleton & Sons**, manufacturers of long draft aprons.

The John Hewson Co. has opened offices at 6349 North Western Ave., Chicago, Ill. Robert H. Metz, Jr., has been appointed district manager.

Interchemical Corp. has announced the appointment of Henry A. Wells as technical representative in the southern sales district, with headquarters in Rock Hill, S. C. He was previously assistant service manager of the textile colors division.

Oscar Kohorn & Co., Ltd., has announced that installation of its tire yarn machines has begun at Celulosa y Derivados, S. A., Monterry, Mexico, for the production of rayon tire yarn. To help finance a rayon expansion program in Chile, the firm has underwritten a new stock issue of "Rayonhil" Industrial Nacional de Rayon S. A., the country's largest rayon producer.

The textile machinery business conducted under the name of F. A. Lazenby & Co. was sold to **The F. A. Lazenby Co.** President of the new corporation is Ray V. Watson, formerly with Slaysman Co. Raymond S. Watson is vice-president, and Olney R. Payne, treasurer.

John Burman, formerly resident sales representative for **Libbey-Owens-Ford Glass Co.** in the Wallingford, Conn., area, is now fiber glass consultant in the Detroit office.

Metco Corp., recently organized for the development and manufacture of test equipment and related products, has opened offices and laboratories in Dayton, Ohio. Harold E. Folkerth is president.

Construction of a new plant near Moundsville, W. Va., has been announced by the National Aniline Division of **Allied Chemical & Dye Corp.** It will be used for production of maleic anhydride and fumaric acid. F. J. Krueger is directing the project.

The B. F. Goodrich Co. has leased a new one-story brick and steel warehouse building at Highpoint, N. C., as a distribution point for covered elastic yarn and Koroseal upholstery materials.

New England Chemical Supply Corp. has announced the completion of a bulk liquid storage terminal for

Akers' New General Offices

Akers Motor Lines, Inc., celebrated the opening of its new general office building at Gastonia, N. C., with an open house and barbecue for customers and friends. The new structure has nearly 20,000 sq ft floor space, and marks an improvement in Akers direct shipping service, available to 90% of the entire textile industry. President of the firm is W. W. Akers, Jr.

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chemical and solvent storage at Grasmere, N. H. A 10,000-sq ft warehouse at South Gardiner, Me., has been leased for distribution of chemicals in the central and southern Maine area.

Ernest O. Ohsol, formerly with General Electric Co., has joined **Pittsburgh Coke & Chemical Co.** as director of chemical engineering.

Thomas R. Scanlan, Jr., is now a salesman for **Hart Products Corp.**, in the Pennsylvania, Maryland, and

Mr. Scanlan

South Jersey territories. He will assist Thomas H. Hart, director of sales in that area.

The Fiber Glass division of **Pittsburgh Plate Glass Co.** has established district sales offices at 30 Rockefeller Plaza, in New York City and 1545 New York Ave. N. E., Washington, D. C. Paul D. Kaley is sales manager of the New York district, with H. J. Bygott, Jr. in charge of the Washington office.

Reliance Electric & Engineering Co. has announced the appointment of William C. McConnell, sales engineer in the firm's Detroit district, to head up Reliance a-c motor sales. Robert B. Reed has taken over Mr. McConnell's duties, and Rex T. Willard replaces Mr. Reed in the Birmingham area. The Newark, N. J., sales offices have been moved to larger quarters at 535 High Street.

Donald F. Murphy was recently elected a vice-president of **Rohm & Haas Co.** He has been with the firm since 1930.

D. Bruce Ervin has been added to the sales department of **J. O. Ross Engineering Corp.** His territory will be Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and West Virginia. He was previously with York Corp.

Werner Textile Consultants were recently awarded a Certificate of Cooperation by the Mutual Security Agency for their part in arranging the first international textile management conference.

Karl Lieberknecht, Inc., Reading, Pa., recently celebrated its 25th anniversary of service to the hosiery industry.

Link-Belt Co. now has in operation a new 300,000 sq ft plant at Colmar, Pa. It will be used for manufacture of custom-designed conveying and processing machinery.

Dr. Lawrence W. Bass, previously with U. S. Industrial Chemicals Co., has become associated with the research and engineering firm of **Arthur D. Little, Inc.**

William E. Buchanan of Appleton, Wis., has been elected to the board of directors of **Allis-Chalmers Manufacturing Co.** New manager of the Char-

Mr. Cline

lotte district office of the company is Roland H. Cline, who succeeds William Parker, deceased. Mr. Cline has been a representative in the Charlotte office since 1949.

Minneapolis-Honeywell Regulator Co. has announced the appointment of Paul B. Wishart to the newly created position of general manager. Mr. Wishart was also elected to the board of directors, and continues as vice-president.

SUPPLIERS News
WHAT THEY ARE DOING

A plant for manufacture of a synthetic fiber of the polyamide type is being constructed by **Allied Chemical & Dye Corp.** near Hopewell, Va. This marks the company's entry into the field of man-made fibers.

Sutton M. Ebert, P. O. Box 7144, Elkins Park, Philadelphia, Pa., is now sales representative for the **Watson-Williams Manufacturing Co.** in Penn-

Mr. Ebert

sylvania, New Jersey, and Maryland. He was formerly with James H. Billington Co.

Mrs. Mildred Barnwell Andrews has been appointed public relations director for the **American Textile Machinery Exhibition,** to be held in Atlantic City, N. J., April 26-30, 1954. The event is sponsored by the American Textile Machinery Association. Mrs. Andrews recently was associated with the textile mills' industry-wide public relations activity, and prior to that was executive secretary of the Southern Combed Yarn Spinners Association.

Ira S. Hurd has been appointed director of sales promotion for the Warwick Chemical Co. division of **Sun Chemical Corp.**

Multi-Clean Products, Inc., has purchased the floor sanding machine division of the Lincoln-Schlueter Floor Machinery Co. Manufacturing operations have been transferred to the Multi-Clean's factory in St. Paul, Minn.

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This is a reprint of 26 pages 8½ x 11 of a series of articles which were previously published in "Textile Industries," containing valuable information, illustrations, tables, charts and diagrams.

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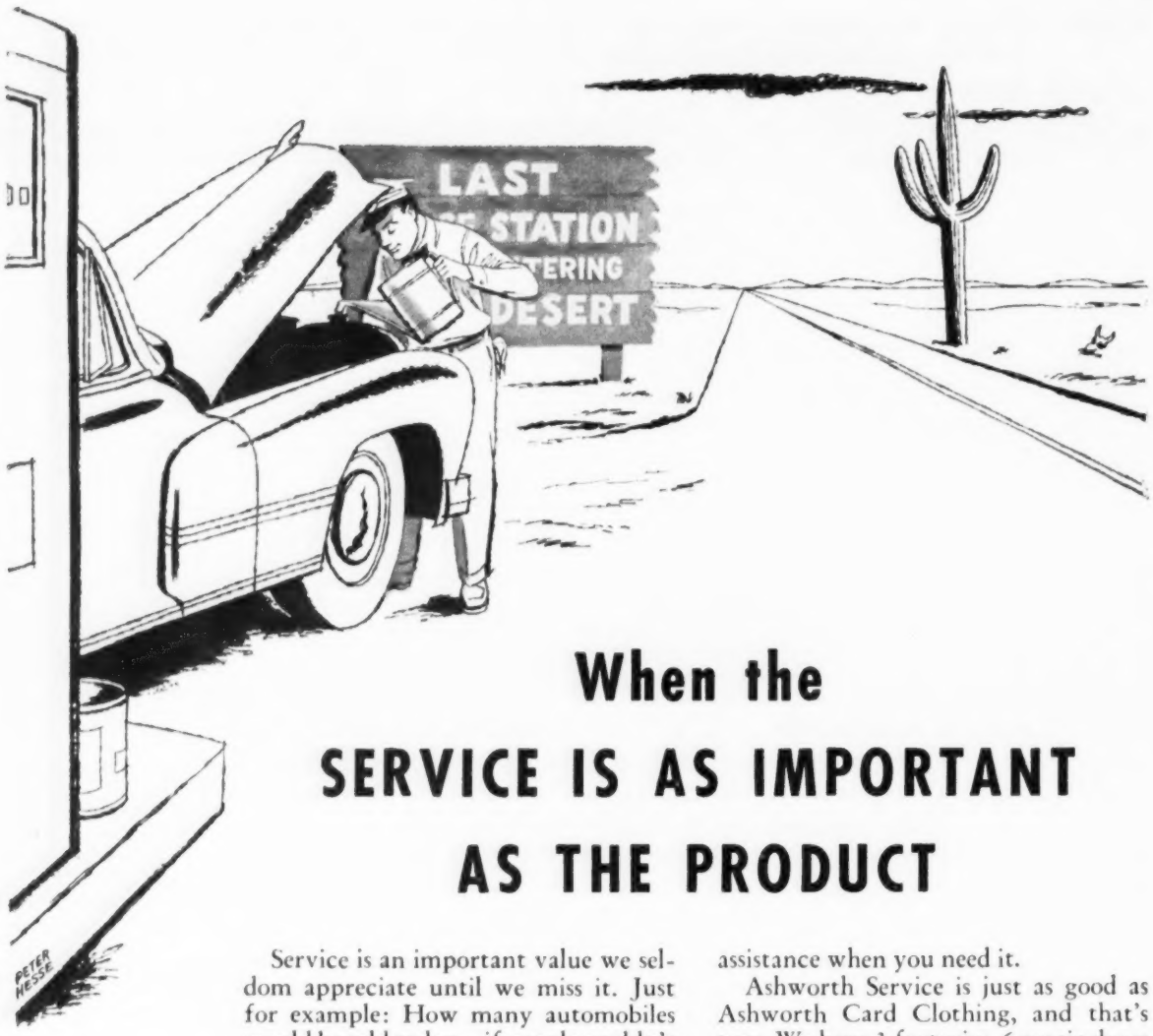

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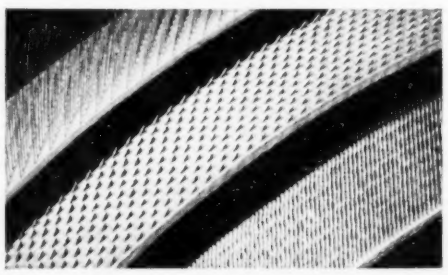

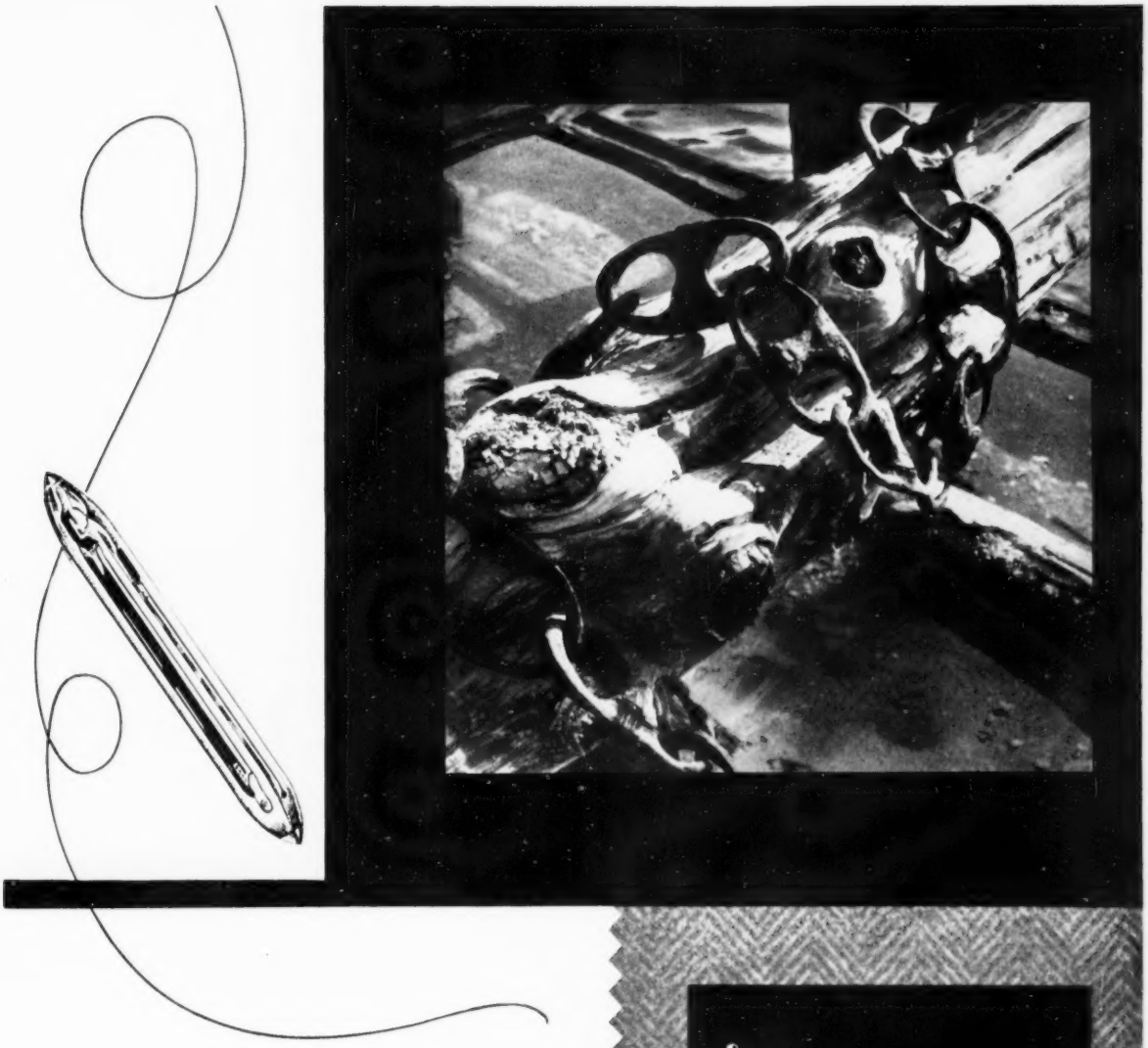

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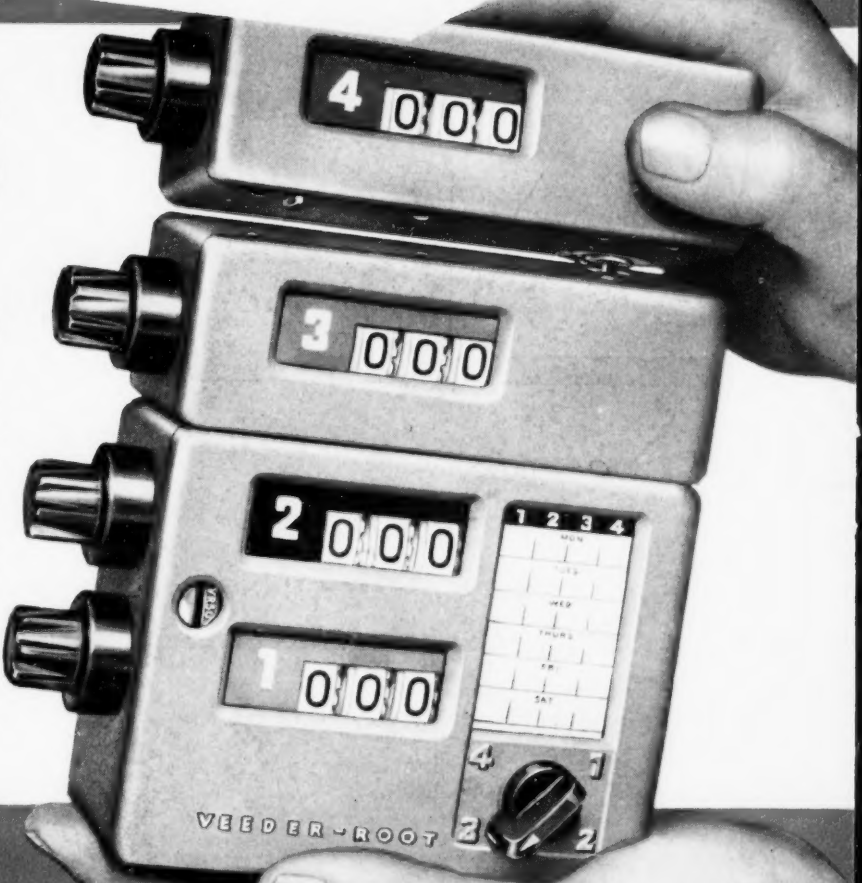

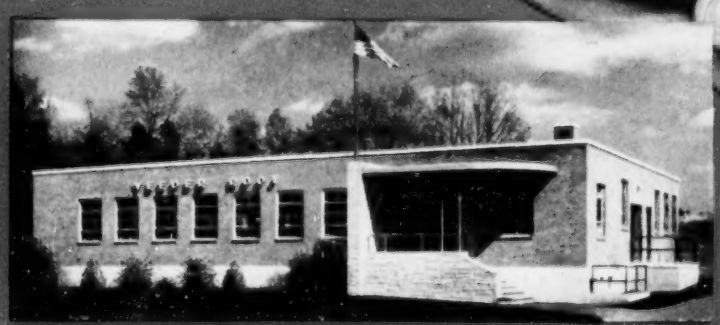

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